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TREATISE

ON THE

CAUSES AND CONSEQUENCES

OF

HABITUAL CONSTIPATION.

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P R E F A C E.

THE object of this Treatise is to direct attention to habitual constipation as a very frequent cause of general and of local disorder and disease; a subject but partially considered and investigated hitherto.

For some interesting cases illustrative of parts of this work I am indebted to Dr. Williams, Dr. Stroud, Mr. Calaway, Mr. Morgan, Mr. Taunton, Dr. Roots, Sir Astley Cooper, Sir Benjamin Brodie, Mr. Tupper, Mr. Baller, Dr. Paris, Mr. Dendy, Dr. Hen. U. Thomson; to all of whom I return my grateful thanks.

To the late Mr. Jukes of Stourport, Worcestershire, I am under great obligation not only for the valuable cases supplied by him, but for personal kindness shown to me on many occasions. I gladly avail myself of this opportunity to express my respect and regard for the virtues and abilities of that estimable man.

J. B.

24, Lower Brook Street,
February 1, 1840.

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OF

THE CAUSES AND CONSEQUENCES
OF
HABITUAL CONSTIPATION.

INTRODUCTION.

UPWARDS of twenty years have now elapsed since my attention was directed to the influence of disorders of the digestive organs upon the general health by the admirable lectures of Mr. Abernethy. From the hour I first listened to the doctrines of that distinguished teacher, my mind has been so impressed with their importance, that I have taken advantage of every opportunity to test their general accuracy, and to investigate, in a more special manner, the sources of the numerous derangements comprised in disorders of the digestive organs.

I had pursued this inquiry but a short time, when I was struck with the frequency of one particular cause, which could be traced as the only one in operation from the period of health to the establishment of the disorders the subjects of investigation. I found, moreover, that these disorders ceased on the removal of this the presumptive cause; and thence concluded that they stood in the relation of effect to such cause.

Next I discovered that this same cause had existed through a long period in diseases apparently only remotely connected with it; and then proceeded to ascertain its relation to these diseases, by tracing back, step by step, the manner of their formation: and the evidence which has resulted authorises me to attribute the origin and establishment of these diseases to the continued operation of the cause in question; namely, *Habitual Constipation*.

Arrived at the belief that habitual constipation is capable of pro-

ducing very many disorders, I have devoted much time and attention to discover the range of its influence and to inquire into its more immediate and remote effects: and the information obtained enables me to particularise a list of complaints which may reasonably, I think, be regarded as the consequences of habitual constipation. Nor have I presumed to reach this conclusion without having seen disease on an extensive scale at a dispensary and at a general hospital, independent of private practice, on a scale which has afforded an ample field for the observation and experience requisite to justify new views, and to form sound opinions.

Of the disorders alluded to, some are the result of universal sympathy; some of contiguous, others of remote, sympathy; and some of physical irritation, and of direct mechanical operation.

As the result of universal sympathy, may be enumerated those disordered conditions of the general health which predispose to any inveterate, or even malignant, disease, the local development of which, accident or other cause, may determine.

Of contiguous sympathy are irritation of the sexual organs in men; and many very serious affections of the sexual organs in women, as irritation, tenderness, and hypertrophy of the uterus; irregular menstruation; abortion; leucorrhœa. Of remote sympathy are indigestion; sick-headach; pyrosis; erysipelas; neuralgia; and spasmodic contraction of muscles, as of the jaw producing trismus, and of the extremities producing deformity. Of physical irritation are spasmodic colic; rigidity of the sphincter ani; fistula ani; stricture of the rectum or other part of the large intestine; tenesmus; dysentery; and symptoms simulating strangulated hernia. Of direct mechanical operation are dilatation of the rectum; haemorrhoids; and prolapsus ani.

It gratifies me to find in the elaborate work of Dr. Good, that constipation is regarded as a *cause* of various complaints. "The effects of constipation when long continued, are," he says, "pains in the head, nausea and sickness at the stomach, febrile irritation, general uneasiness in the abdominal region, congestion in the abdominal organs; and hence an impeded circulation of the blood, piles, varices in the lower limbs, and, as we have already seen, colic. Many hysterical affections, chlorosis, and chorea or St. Vitus's dance, formerly supposed to be unconnected with the state of the bowels, are now proved to be very prejudicially influenced, if not excited, by constipation. Even symptoms, bad enough to cause the case to be set down as phthisis, and the patient to be sent to Madeira, were ascertained by Dr. Borthwick to arise from habitual costiveness, and to yield to purgatives."*

The practical and much valued "Observations" of Dr. Hamilton on Purgative Medicines have not occupied the ground, or anticipated the subject, of the present work. He remarks, "This con-

* Study of Medicine: by John Mason Good, M.D. Fourth edition. By Samuel Cooper, vol. i. p. 192, 193.

stitutional costiveness is of dangerous tendency, and however desirable it may be to rectify it, the consideration of it is not comprehended in my present plan, which embraces only a few diseases, of which I consider costiveness to be the cause, or in which I apprehend it to be a leading or permanent symptom.”*

The extensive experience and acute observation of this excellent physician impressed him with the conviction, that “the constipated and loaded state of the intestinal canal is a common cause of general bad health.”† Further, he says, that “in mature age, and in the decline of life, symptoms, which are attributed to previous irregularities, to idiosyncrasy, to hereditary disposition, to disease, and to approaching old age, frequently arise from constipation of the bowels, or are intimately connected with it. The consideration, however, of these is but partly comprehended in my present undertaking.”

“Thus I have learned, that a knowledge how to regulate the alvine evacuation, constitutes much of the prophylactic part of medicine; and hence how necessary it is to advise those, who either wish to preserve good health, or who are in quest of the lost treasure, to attend to this circumstance.”‡

The acknowledged valuable principles established by Mr. Abernethy, of the influence of disorders of the digestive organs upon local disease, and of the reciprocal influence of local disease upon the digestive organs, were deduced from an extensive general observation of external disease. Assured of the principles, he did not engage himself in the analysis requisite to distinguish the special characters and sources of these disorders: but, with the candour of a great mind and with a view to encourage further inquiry, he remarked that “accurate attention to the subject, especially in medical cases, may lead to important sub-divisions, which I have not yet been able to make;” that “The subject is so important, that the public would be highly indebted to any practitioner who would point out the varieties of these diseases, and the appropriate modes of cure.”§ It is this task which I propose to myself; in so far at least as relates to all those affections which, in my belief, arise from habitual constipation.

Among these affections it will be seen that I have not included chorea or chlorosis, for the reason that experience has not satisfied me of the propriety of ranking these disorders among the consequences of habitual constipation, though unquestionably they are aggravated and protracted by it; and for the reason also, that their connexion with a deranged state of the alimentary canal, and the beneficial influence which purgatives exercise upon them, have been so ably pointed out and illustrated by Dr. Hamilton.

* Observations on the Utility and Administration of Purgative Medicines in several Diseases. By James Hamilton, M.D. Second edition. Edinburgh, 1806, p. 9.

† Op. cit. p. 6.

‡ Op. cit. p. 7.

§ Abernethy on Diseases of the Digestive Organs, p. 42. 61.

CHAPTER I.

OF THE DISPOSITION, RELATIONS, ORGANIZATION, AND FUNCTIONS OF
THE LARGE INTESTINE.

Disposition.—The large intestine, consisting of the cæcum, colon, and rectum, is more spacious, though less long, than the small intestine. The cæcum is situated in the right iliac fossa, and the colon, directing itself upwards, takes a circuitous course around the abdominal cavity; and, after forming the sigmoid flexure on the left side, gains the pelvis, into which it dips to terminate continuously in the rectum.

In this course the ascending colon passes in front of the right kidney, and continuing along the anterior edge and under surface of the liver, in contact with it and with the gall bladder, traverses the upper part of the abdomen in a line with, and rather below, the large curvature of the stomach; and now, having, gained the left side, descends in front of the corresponding kidney as far as the spine of the ilium, where its tortuous course forms the sigmoid flexure, which, proceeding across the ilio-sacral articulation, dips into the pelvis to form the rectum, as has been stated.

Relations.—In thus performing the extensive circle of the abdomen, the colon places itself in contiguous relation with all the viscera of that cavity; with the liver, stomach and spleen on its outer line of circumference; with the duodenum and convolutions of the small intestine on its inner line; and with the kidneys and hepatic and pancreatic ducts on its posterior. The rectum also, in its course through the pelvis, lies in a similar relation with the prostate gland, vesiculae seminales, bladder, and urethra in the male; and with the uterus and vagina in the female.

How varied and great, then, are the sympathies that may result from this extensive and multiplied relation of contiguity between the large intestine and so many important organs of the abdomen and pelvis; and how worthy of research and elucidation are the disorders not only of this intestine itself, but of all those other organs which are connected with it by the relation of sympathy.

Organization.—The peculiar organization of the large intestine consists in its longitudinal muscular fibres being collected into three ribbon-like bands, which, being of less length than the intestine itself, cause it to be wrinkled across, and thus to form bulgings or cellules separated by corresponding depressions or furrows. These ribbon-like bands, commencing at the cæcum, extend along the whole tract of the colon; and, converging as they gain the rectum, surround this bowel with an exceedingly thick and strong muscular tunic.

The interior of the large intestine is lined by a mucous membrane, the villosities of which are much less apparent than in the

small intestine. It has scarcely any valvulae conniventes, but is furnished with a great number of muciparous glands, large and solitary. Its supply of blood from the mesenteric arteries is less abundant than the supply to the small intestine. Its veins concur to form the vena portæ.

The organization of the rectum presents several marked peculiarities. Its lower portion is destitute of a peritoneal tunic, while its upper is furnished with one which even forms a meso-rectum. Its muscular coat is composed of two planes of fibres; the internal circular, the external longitudinal: and O'Beirne states that the longitudinal fleshy fibres are set closely together, so as to completely surround and cover the internal plane; and that, in addition, each of the three longitudinal bands of the sigmoid flexure sends down strong fleshy fibres to be expanded upon and intermixed with those of the proper external plane. The longitudinal fibres predominate in the upper two-thirds of the rectum; the circular exist chiefly in the upper third, and near the anus. "It is therefore both an anatomical and a physiological fact, that this intestine exceeds every other part of the intestinal canal in the number and strength of its muscular coats, and consequently in muscular power."* Its mucous membrane is described as thicker, redder, and more spongy than in the other parts of the intestinal canal; and by Houston as exhibiting several valvular projections. Its vascularity is very great, no intestine receiving so many blood-vessels as the rectum in proportion to its volume. Its nerves are derived not only from the ganglionic system, but also from the cerebro-spinal; and it is therefore endowed not only with organic sensibility in common with the rest of the intestinal canal, but with animal sensibility also.

Functions.—The large intestine may be considered a reservoir intended to contain, for a certain time, the excrementitious residue of the alimentary matter, which, as soon as it is introduced into the cæcum, takes the name of feculent matter, feces, excrement, &c. Until the excrementitious residue has arrived in the large intestine, it is said to be free from the fetid odour peculiar to human excrement—an assumed fact, which has given rise to the opinion that there is a power of fecification inherent in this intestine. This change, however, is to be attributed more properly to the decomposition of the excrementitious matter from its abode in the intestine, than to any power of fecification inherent in it, as may be shown by a reference to pathanatomy. In cases of stricture of the upper part of the rectum, for example, there takes place in the colon a gradual though immense accumulation of feculent matter, soft, homogeneous, fetid, and deeply tinged with bile; and precisely the same thing happens where the obstruction is seated in the cæcum, when a similar accumulation forms in the small intestine, distending it for a considerable distance upwards, and presenting the same appearance and charac-

* New views of the Process of Defecation. By James O'Beirne. Dublin 1833, p. 9.

ter in every respect as the accumulation in the colon, being like it soft, homogeneous, naturally tinged with bile, and emitting the characteristic fetid odour.*

These facts prove that fecification is not limited to the large intestine, but will be accomplished in any part of the intestinal canal, where the excremential residue is retained sufficiently long to go through the usual process of decomposition.

The decomposition of the contents of the large intestine gives rise to the evolution of gas, which, by the stimulus of distension, excites the peristaltic action of the intestine, and is expelled by the additional conjoint aid of the diaphragm and abdominal muscles. When, however, the expulsion of the gas is opposed by the sphincter, called into action by the will, it returns immediately into the colon, but is prevented passing into the smaller intestines by the ilio-cæcal valve. The gas, thus confined in the large intestine, distends it, excites its contractions, and is driven, first in one direction than in another, with a force sufficient to produce the disagreeable rumbling noise, *borborygmus*.

The use of the ilio-cæcal valve is here conspicuous; for without it, the gas opposed in its natural passage downwards, would ascend into the small intestine and be discharged by the mouth—a horrible alternative. The chief use of this valve would seem to be to oppose the passage upwards of the fetid gas of the large intestine, because its construction is little adapted to oppose solid matter or even fluids, and because some reports authorise the belief that clysters, injected with great force, have overcome the resistance of this valve, and have been thrown up by vomiting. Besides, an anti-peristaltic action of the large intestine, powerful enough to propel its solid contents in this unnatural direction, is so rare as scarcely to admit of belief, and consequently not to need the obstacle of a valve.

The quantity of gas in the colon is often considerable, and its change of place indispensable; for, was it confined to one part, the prolonged distension of this part would strain and paralyse its muscular fibres, and so impair the function of the gut. The capacity of the colon, then, may be regarded not merely as a reservoir for the fecal matter—for, except in states of disease, its great capacity would be altogether superfluous—but more especially for the gases evolved from that matter, which, when not allowed to escape, require space for motion to and fro; an essential provision, adequately supplied by the capacious colon.

The functions of the colon are supposed by some not to be limited to the offices of a reservoir and of simple transference, but to be in part digestive and emunctory.

Schultz entertains some very extraordinary notions of the functions of the cæcum and colon, suggested to him in the first instance

* See Case 4, in the author's paper on the Cæcum and Appendix, published in the Trans. of the Royal Med. and Chir. Society, vol. xx. p. 213.

by his own sensations of what goes on within the intestinal canal. He speaks of having felt a palpitating agitation in the motion of the colon from right to left; of having felt, after aperient medicine, bile flow abundantly into the duodenum, and traverse swiftly the whole small intestine to the cæcum, there to collect, and then to move with the food slowly along the large intestine. He is of opinion that an acid digestion goes on in the cæcum; that the bile passes along the intestine to join the food in the cæcum after it has been digested there; that the ilio-cæcal valve is closed like the pylorus, to prevent bile passing while cæcal digestion is going on; that digestion in the cæcum and stomach have their periods—the stomach by day, the cæcum by night.* For these opinions I do not discover any sufficient foundation.

Sir Everard Home has adduced some facts on which he grounds an opinion that fat is formed in the large intestine: but, on perusal of his observations, I do not find they establish any other point than that lumps or masses of fat have been found in the alimentary canal of living animals. The remarkable difference in the short length and small dimensions of the colon and cæca of the casuary of Java—the colon one foot long, and each of the cæca only six inches long and a quarter of an inch in diameter—and in the great length and large dimensions of the colon and cæca of the African ostrich,—the colon forty-five feet long, and each of the cæca two feet nine inches long and three inches in diameter,—as associated with and adapted to the luxuriancy of Java and the dearth of Africa, struck Sir Everard forcibly, and suggested to him the opinion, that the colon and cæca were not unimportant in the office of assimilation.[†]

The opinion that the large intestine is concerned in the digestion of the vegetable part of food, derives no support from the phenomena of its functions observed during health. The residual matter voided presents characters in no way different from that found in the cæcum, except its greater consistency, its fluids having been in part absorbed.

In the healthy condition of the digestive organs, the residuum of food having reached the large intestine, is already homogeneous and feculent, and offers no appreciable evidence of incomplete digestion, which it certainly would do if the vegetable part had not yet been assimilated. Nor is there any better reason to believe that this intestine acts as an emunctory for the purpose of removing other excrementitious or hurtful parts from the system.

It is important, for the clear understanding of this subject, that we contemplate the functions of the large intestine in its healthy state, otherwise our judgment may be misled; for because we find secretions from the colon, when diseased, form part of the egesta, we may erroneously conclude that therefore they do in the normal

* *De Alimentorum Concoctione.* Carolus Henricus Schultz. Berolina, 1834.

† *On the Formation of Fat in the Intestines of living Animals.* By Sir Everard Home, bart. Philosophical Transactions, vol. ciii. 1813.

state. In the healthy action of the large intestine we are not able to recognise any difference of character in, or addition of substance to, the fecal matter during its transference. All those abnormal excretions,—whether melanotic, sanguineous, mucous, or purulent, derived from the large intestine, are products of a pathological state of the mucous membrane. They are heterogeneously mixed or smeared over, or intimately and uniformly combined with, the proper feculent matter. Did any excrementitious secretions take place as the normal function of the large intestine, they certainly would be apparent, from the want of intimate combination with the residuum of food; whereas the feculent matter voided is perfectly homogeneous.

Besides, if the large intestine were an organ of excretory disassimilation, it would, in common with other organs of secretion, be richly supplied with blood; but the contrary is the case.

There is comparatively less blood furnished to the colon than to the small intestine; while to the rectum the supply is most abundant: yet the rectum is not supposed by any to perform the office of excrementitious secretion. I do not hold with the opinion, that the large intestine, in health, supplies any considerable part of the excrementitious matter voided; or that, from its lining membrane, there takes place any other secretion than mucus to lubricate its surface and facilitate the transference of the feces. In Adynamic fevers, and many other disorders, one cannot hesitate to believe that a large portion of the foul alvine evacuations proceeds from the mucous membrane of the bowels itself; but this is the result of disease.

The alimentary matter, deprived almost wholly of its nutritive properties, passes from the ileon into the cæcum, whence it is transmitted along the colon, and, when arrived at the commencement of the rectum, excites a sensation which calls for its expulsion. The excretion of this intestine once in twenty-four hours, although consistent with health, would appear to be less frequent than the uninfluenced order of nature requires.

There can be little doubt that the large intestine, like the bladder, admits of a certain accumulation of its contents before it is stimulated to expel them; but I should be disposed to limit this accumulation to the residuary matter of an ordinary meal, and attribute any addition to the influence of habit. By reverting to the healthy action of the bowels in infancy—the only condition in life uninfluenced by the will—we find evacuations take place pretty nearly in the same ratio as the number of meals; and that the residuary matter of one or two meals is sufficient to provoke an expulsive movement: but as soon as the development of the mind admits impressions which influence the will, then do the dejections become less frequent, and eventually occur only at convenient periods, once or twice in the day, with an extraordinary regularity. Even thus early does the will influence the action of the bowels.

In accordance with the laws of the animal economy, the protracted

presence of the feculent matter so obtunds the organic sensibility of the intestine, that a considerable accumulation is required to provoke its action, which therefore generally happens only once in twenty-four hours. In this time the feculent matter does not undergo any unfavourable change; but, when delayed for a longer period, it becomes, first, solid, then hard, friable, and knotty; a preternatural state, which renders its evacuation difficult, and which soon excites a morbid irritation of the bowel itself. In persons who have one evacuation daily, it occurs usually when the organic sensibility of the alimentary canal is heightened, as on getting up in the morning, or on rising from the breakfast table. Here the excrementitious residue of one day's food has accumulated in the large intestine during the night without exciting an expulsive movement of the bowel, the perceptive power of the nervous system being less quick during sleep; but the state of sleep having passed away, the nervous sensibility is revived, or, from the excitement of breakfast, heightened, and the bowel stimulated to the act of excretion.

CHAPTER II.

GENERAL REMARKS UPON, AND VARIOUS CONSEQUENCES OF HABITUAL CONSTIPATION.

Inconvenience of Constipation.—Habitual Constipation a Source of general Disorder and of local disease.—Tumours of the Breast dissipated.—Loaded Colon mistaken for Disease of the Liver.—Congestion of the Portal System and Disease of the Liver.—Hypochondriasis.—Neuralgia.—Epilepsy.—Spasmodic Contractions of Muscles.—Duration of Constipation.

THERE are few persons who have not themselves experienced, at some period, the inconvenience of constipated bowels. Those in whom this inconvenience has been only occasional, will not be prepared to attach so much importance to the subject as it is the object of this work to point out; while all who have suffered from constipation habitually, will agree in regarding it one of the greatest troubles of life. Not only does it indispose the mind to exertion and the body to exercise, but it casts a gloom over the spirits, and is productive of that general discomfort which ruffles the temper and embitters the ordinary enjoyments of life.

It is true that Nature has designedly provided for the retardation of the excrementitious matter in the large intestine by furnishing the extremity of the bowel with a muscular mechanism subject to the will; a controlling power, which, duly exercised, is essential to our comfort and convenience; but which, abused to set aside the calls of nature and so to retain the fecal matter within the bowel, is sure to be productive, sooner or later, of very formidable and disastrous consequences.

If we contemplate, for a moment, the processes and changes which take place in our food during its passage through the alimentary canal, and compare the characters of the excrementitious matter voided in the ordinary course of nature with the characters of that which has been unduly retained, we shall experience no difficulty in coming to the conclusion, that much injury, not only to the bowel but to the constitution, must, of necessity, result. The excrementitious residue in its natural state is consistent, soft, homogeneous, cohesive; but retained in the bowel, it becomes hard, knotty, dry, and friable: changes produced by the absorption of its fluids, which being necessarily conveyed into the blood, adulterate and corrupt it. Hence then an abundant source of impurity to the blood.

Feculent matter, even in its natural state, irritates the intestine if retained beyond the usual period; and how much more irritating must it prove, when its characters have become altered as above. Irritation of the large intestine, so induced, extends by sympathy to the liver and stomach, and by disturbing their functions, impairs digestion. From impaired digestion, there must proceed impure chyle, from impure chyle impure blood; and if impaired digestion, produced and prolonged by habitual constipation, should endure, not for months only but for years, how can we wonder that the whole mass of the blood should become corrupt, or that the solids derived from that blood should be corrupt also? How can we wonder that eruptions should disfigure the body, or that untractable or malignant disease should break forth and shorten life? Can we hesitate then to believe that habitual constipation may be and is one frequent source of general disorder and of local disease?

Although, in all treatises on disorders of the digestive organs, attention is recommended to the due evacuation of the intestinal canal, and, since the promulgation of the doctrines of Mr. Abernethy, the same attention has been extended to other complaints, yet the influence of habitual constipation in the production of disease by direct and indirect agency has been in nowise appreciated; the constipation having been regarded rather as an incidental circumstance than as a definite and original cause. Nor are we, on this account, aware of the vast power which an unremitting attention to the action of the bowels has in curing many disorders, and may have in ameliorating the character of many intractable diseases. "Many morbid states," says Dr. Holland, "attributed, with the too frequent vagueness of medical language, to the stomach and liver, are chiefly, as I believe, connected with the colon as their seat and source."* Believing, indeed, that the cachectic diathesis which gives rise to some malignant diseases may be generated by habitual constipation, I look forward with some degree of hope that, by keeping this principle steadily in view, the progress of the more chronic forms of these diseases may eventually be checked, and the morbid diathesis so amended, as to diminish their hitherto invariably fatal tendency,

* Notes and Reflections. By Henry Holland, M. D. London, 1839, *Select Medical Library* ---October, 1839.

—an opinion which derives some countenance from the following cases.

CASE I.—Tumour in the breast dissipated by attention to the bowels and general health.

Charlotte Bowles, aged 43, was a patient at the Public Dispensary, in 1830.

The complaints, on account of which she applied, were headache, flushings in the face, acidity of the stomach, great flatulence, and a confined state of the bowels, which had been most irregular for many years. After she had stated these symptoms, she showed me a tumour in the breast, which I remember to have examined; but having made no note of it at the time, I cannot speak confidently of its character, further than my impression that it was an indolent scirrhus, and that it did not call for local treatment. She was put on a course of alterative stomachic aperient medicine, with a view to regulate the bowels, and improve the general health; but without any special reference to the tumour. She continued under treatment four months, got quite well, and was stronger and better than she had been for some years. When nearly recovered, she surprised me very much by saying, that the tumour in the breast had been diminishing for some time, and was now gone; which on examination I found to be the case, for the breast was soft and natural. I immediately wrote down the following history of the tumour, and regretted much that I had not made a note of her case when she first came under treatment.

At 35 years of age, a hard tumour appeared in the left breast, above and to the outside of the nipple: and, in the course of eight months, attained the size of a walnut. It was attended with gnawing lancinating pains, very severe at times. Leeches, lotions, and plasters had been of no avail; no medicine had been taken internally. The tumour was excised by the late Mr. Compson; the wound healed, and no return of the tumour took place till five years afterwards. This second tumour was situated in the cicatrix left by the removal of the former one, was very hard, and attended also with darting pains: the nipple was not involved.

It would be improper in me to give any decided opinion of the nature of this tumour; but its history and character, as given by the patient, namely, its hardness, the darting pains, its excision, its return in the cicatrix in five years with the same features of hardness and lancinating pain, afford presumptive evidence of a scirrhus of the most indolent and chronic form.

CASE II.—Tumour in the breast dissipated by regulating the bowels, and improving the general health.

Mrs. Couchman, age 40, matron in the laundry at the Magdalen Hospital, had been troubled for eleven or twelve years with obstinate constipation of the bowels, always requiring the use of aperients, which if she neglected to take, she would pass an in-

definite time without a dejection. Menstruation was regular, but not copious.

She was affected with a tumour in the left breast occupying the outer part of the mammary gland, as large as a small egg, very hard, very tender, always painful; and pain of a darting character would at times seize her, go through the shoulder and down the left arm: the arm-pit was tender, but the glands not enlarged; yet the arm was swollen to the elbow, and she suffered so much in the breast when she used the arm, that she was obliged to desist. Her stomach was greatly disordered; she was always uneasy after food, rather sick, sometimes even to vomiting, at others discharging clear,ropy water from her mouth. On several occasions she threw up blood, and passed blood with her dejections. Her appetite was so indifferent that she could take but little food: solid suited her better than slops or broth. She was so reduced in flesh and strength, that she could scarcely walk alone, and her face was linear, giving her altogether the aspect of a person declining under the influence of visceral or malignant disease.

The tumour had been relieved more or less by leeches, applied under the direction of Mr. Bransby Cooper; the darting pains, nevertheless, continuing, and the tumour was disposed to increase. Her health being so much impaired, Mr. Cooper referred her to my charge at the beginning of the year 1838. The affection of the stomach appeared to me to be not merely functional; the imperfect digestion, the impatience of food from increased organic sensibility, and the emaciation, indicated certainly a greater or less degree of pathological congestion of the organ, which, coupled with the state of the breast, led me to apprehend a scirrhus of the pylorus. The treatment adopted was on the principle of subduing subacute-chronic inflammation of the stomach, and of regulating the bowels. The latter was effected with difficulty, partly on account of the obstinacy of the constipation, and partly on account of the irritability of the stomach, which would not retain many of the more active purgatives.

A variety of aperients was tried from time to time; those which agreed best and proved efficacious, were the *infusion and tincture of senna* with *créasote*, and pills composed of the *compound extract of colocynth, opium*, and a little *calomel*. The *créasote* at all times tended to appease the stomach, and caused aperients to agree where otherwise they would have been rejected. Opium was essential in the treatment; and much good resulted from a mild though prolonged course of mercury, the doses being of *calomel half a grain, opium a quarter of a grain*, taken twice a day after meals. When the gums became sore the mercury was suspended for a few days. In this manner both the calomel and the opium, as also the aperients, were persevered in for many months with great improvement in the health, and the very unexpected subsidence, and ultimately the almost entire dissipation of the tumour in the breast. *Belladonna* in the form of plaster was applied with decided benefit.

I have seen Mrs. Couchman this morning, April the 26th, 1839, and have examined the left breast, in which scarcely any vestige of the tumour remains. Her health is comparatively good, and, although she is still thin, she has gained flesh very much. The bowels require attention, and the stomach great discretion as regards food. In a note from Mr. Cooper, I find that he "never considered the tumour of a malignant character."

The daily and unrestrained action of the bowels is so essential to the comfort of every individual, that any person, disappointed of an habitual evacuation, is rendered irritable and uncomfortable through the day; and his mind is not, as usual, alive to pleasure or ready at business.

In the female sex, constipation is so universal that experience has taught me to hesitate in forming an opinion of the nature of an abdominal ailment, until I have assured myself, beyond doubt, of the entire evacuation of the large intestine: the want of which circumspection has led to much error.

A young lady was supposed to be labouring under disease of the liver, and had been subjected to a course of mercury and of other medicines without relief. She had fulness and tenderness in the neighbourhood of the liver, with pain in the shoulders, sallowness of the skin, and other signs of hepatic disease. Further advice was sought; and the bowels being found in an unsatisfactory state, it was suspected that the symptoms might arise from a loaded colon; and accordingly active purgative medicines were prescribed, which brought away a vast accumulation of hardened feces, and quickly and entirely dissipated the patient's complaints.

When we reflect that the right curve of the colon is in contact with the inferior surface of the liver, we shall have no difficulty in understanding how affections of the colon may, by contiguous sympathy, simulate affections of the liver;—how an irritation of the colon from hardened feces may, by communicating irritation to the liver, disturb its functions;—and how it is in vain to attempt to remove the hepatic symptoms while the affection of the colon, the cause, remains. In cases of this description, where there is doubt as to the state of the alimentary canal, I have frequently been aided in coming to a decision by referring to the urinary secretion, which, when the colon is loaded, is apt to be abundant and limpid as water. A copious discharge of colourless urine then is often diagnostic, as I have long observed.

An habitual accumulation of feces, acting as a source of irritation to the abdominal viscera, generally induces a preternatural determination of blood to these viscera, and brings about, eventually, a congestion of the portal system, which disposes the liver to disease.

A lady, Mrs. W——, of middle age and of full habit, who had an excessive difficulty in regulating her bowels, was subject to fulness and other uneasy sensations about the liver, which were not removed without the local abstraction of blood, in addition to proper

aperient and other medicines. On one occasion, when these sensations existed, she was exposed to cold in travelling, and the consequence was a severe inflammation of the liver. And again in the course of a year, the state of the bowels being neglected, she experienced another hepatic inflammation with most obstinate jaundice.

In addition to an affection of the liver, but associated with it as I believe, the functions of the brain may gradually be so disturbed as, in the end, to disorder the manifestations of the mind, and give rise to *hypochondriasis* and *melancholia*. In many examples of abdominal dropsy from induration of the liver, the origin of the disease may be traced, with every reasonable probability, to a congestion of the portal system resulting from the continued irritation of hardened feces in the colon.

A maiden lady between 40 and 50 years of age, had for many years the bowels costive to a degree that she would pass seven or eight days without an evacuation. In her youth she had been cheerful, but as life advanced she became apprehensive and gloomy, and gave herself up entirely to religious devotions; a state of mind which, on the cessation of the menstrual flux, passed into confirmed insanity: she had at the same time induration of the liver, and soon afterwards dropsy of the belly.

Should any not coincide with me in the view which I take of these cases, I beg to remind them of the sympathy which is known to exist between the liver and the mind. The depression of spirits attending disorders of the liver is familiar to every one; and the examples are not few of jaundice induced by mental emotion. In *hypochondriasis* and *melancholy* there is an obvious reciprocal sympathy between the liver and the mind. The disturbed function of the liver may be produced in the first instance by constipation of the bowels: and the *hypochondriasis* be the result of sympathy.

A young clergyman of melancholic temperament suffered from constipated bowels: his dejections were unsrequent, scanty, knotty; yet his digestion was good. The irregularity of his bowels was a constant trouble to him; he grew dejected in spirits, and his imagination was ever at work on gloomy subjects. Though naturally of a strong mind he was now assailed with superstitious fears, which he could not ward off, and because three vicars had died soon after having been in possession of a certain benefice, he thought the same fate must await him. Here was a state of *hypochondriasis* excited by constipated bowels acting on the melancholic temperament.

That the nervous system is much affected by the condition of the alimentary canal has been remarked by Mr. Abernethy. He has "known nervous pains cured by correcting the disorders which in these cases existed in the digestive organs." For myself, I have more generally found that both these disorders and the nervous pains have been sympathetic of the irritation of constipated bowels; as the following example will show:—

CASE III.—Neuralgia from habitual constipation cured by aperients.

Mrs. Green, aged 31, of a spare habit of body, had been afflicted for some weeks with neuralgic twitches in the neck, on the left side, between the angle of the jaw and the mastoid process, which extended occasionally along the jaw and over the side of the face and forehead. These twitches became violently painful, persisted for some hours, and returned at uncertain periods, night as well as day. During the paroxysms, the sensibility of the spot, before described, was so heightened that she could not suffer the air to blow upon it, and the slightest touch gave excruciating pain. She had risings in the throat, was subject to heats and flushings, to heaviness of the head and other ailments, which it is unnecessary here to detail. Habitually, she was very costive, seldom having dejections without the aid of medicine.

She was instructed to take *five grains of blue pill every night, and the carbonate and sulphate of magnesia with the compound decoction of aloes twice a day.* These medicines kept the bowels freely open; and in the course of five days the neuralgic pains had abated very much, only one paroxysm having occurred during this period. The same treatment being continued, with the addition of *one grain of the sulphate of zinc twice a day,* the pains, as well as her other complaints, were soon removed entirely. Prior to the adoption of the aperient plan, she had taken quinine, sulphate of zinc, and carbonate of iron without benefit.

Other examples of very serious disorders of the brain and nervous system, the effect of remote sympathy from a confined state of the body, might be adduced. Epilepsy, it would seem, is induced by this cause on some occasions, and may sometimes be cured in its early stage by restoring the functions of the large intestine.

CASE IV.—Epilepsy alternating with paralysis of the extremities. Constipation.

Martha Stevens, age 15, a strong built girl, of a very confined habit of body, and in whom menstruation had not yet appeared, had been subject to fits daily for two years, which, with the exception of pain in the head for one or two minutes, supervened unexpectedly, leaving her only time to call out, "Catch me, catch me;" she would then fall immediately and remain stiff for hours, or struggle and be convulsed. At other times, instead of a fit, she would suddenly lose the use of one limb, which would hang paralysed for hours and then recover; it might be the leg, or the arm; or both legs, or both arms. Sometimes the jaw was locked for three or four hours; sometimes the neck was stiff, which generally ended in a fit; though the paralysis did not. Sometimes she was unable to speak; on one occasion for nearly two days. Withal the appetite was good; and she made no complaint. *An emetic was directed to be taken in the evening, and five or ten grains of the aloes and myrrh pill every night.*

The emetic brought a quantity of sour offensive ingestæ off the

stomach; the pills operated freely; and, during the time she continued under my observation, there was no recurrence of the fits or of the paralysis; and her eyes and countenance, which before were dull and inexpressive, now resumed the brightness and cheerfulness natural to her age.

The success which attended the treatment of the above case, is not advanced as any sufficient ground on which to warrant the conclusion, that epilepsy either depends on habitual constipation or can be cured by obviating it where it is found to coexist. The intractable nature of epilepsy is too familiar to me to allow of my indulging any sanguine expectation from the fortunate result of a single case.

The only other consequences of habitual constipation to which I shall here advert are *Spasmodic contractions of muscles*; remarkable effects, producing in one person deformity of an extremity; in another, lock-jaw; cases of much interest, and may be of great anxiety. Mr. Abernethy was disposed to regard traumatic tetanus as connected with the disorder of the digestive organs, which he had observed to arise between the infliction of the injury and the invasion of the disease: a notion strengthened by the following cases:—

CASE V.—Spasmodic contraction of the left fore-arm and hand. Obstinate constipation.

Ann H—, a young woman of robust frame and rigid fibre, had long suffered from most obstinate constipation, seldom experiencing the calls of nature or any spontaneous effort on the part of the bowels, evacuations being procured only by the most active purgatives. Besides this she had no complaint except headache.

On a sudden, there took place an involuntary contraction of the flexor muscles of the left fore-arm and hand, closing the hand firmly and bending the wrist upon the fore-arm. The spasm was so rigid, that no force which I could apply had any effect in overcoming it, nor did the slightest muscular relaxation ensue during the many months she was under my care. The bowels remained unmanageable, resisting the most powerful cathartics and manifesting no disposition to act of themselves.

CASE VI.—Trismus or lock-jaw which persisted five or six weeks: cured.

Mrs. William D—, a fine florid and rather corpulent person, had, for many years, been harassed by obstinate constipation of the bowels, flushings of the face, and sudden heats all over the body, together with pain and heaviness of the head. One day, on attempting to open her mouth she found the jaw stiff; and soon afterwards the mouth itself entirely closed. The idea of a lock-jaw alarmed her exceedingly; and she was indisposed for some days, more from agitation and anxiety than from any sympathetic disturbance of the system arising out of the condition of the jaw, which did not relax, but assumed the character of a chronic trismus.

Aware of the very costive habit of this patient, and unable to discover any other cause, I did not hesitate to attribute the lock-jaw to intestinal irritation excited by retained hard feculent matter; in conformity with which opinion the treatment was pursued. The colon was, in the first place, emptied by copious lavements, which brought away large quantities of scybalous matter; and the bowels were afterwards regulated with great care by proper aperient medicines. Food was administered through the space left by the extraction of a tooth formerly; and, after a perseverance in this plan for five or six weeks, the muscular spasm began to relax, and in a short time subsided altogether; when the free action of the jaw was restored.

The following extraordinary case has been very obligingly sent to me by Dr. Williams.

CASE VII.—Most obstinate constipation yielding only to mercury. Gastric irritation. Severe paroxysmal gastrodynia. Rigid contraction of the lower jaw, and of the upper and lower extremities.

"Dear Sir,

"The most remarkable case of constipation that I have met with, occurred in a lady, and is as follows:—

"The patient had enjoyed good health till the age of 35, when she was attacked with severe gastrodynia, accompanied with most obstinate constipation. The paroxysms lasted several hours and returned at short intervals for nearly a week, when they subsided, leaving her extremely weak. These attacks at first returned only at intervals of many months, but they gradually became more and more frequent, and at length quotidian; and from this period she lingered in a state of suffering seldom witnessed. Her appetite was good, but each meal was followed by a paroxysm of pain so severe and so continued that after trying every variety of diet, she limited herself to a dry biscuit with a little water or brandy and water in the course of the day, and even this was very commonly rejected.

"Nothing gave her relief but opium; and of this medicine, she, for many months, took not less than 60 grains daily. Her bowels, independent of the astringent effects of the opium, were at all times greatly constipated; and no quantity of neutral salts, castor oil, senna, rhubarb, or other mild remedies in the least moved her bowels; while elaterium, croton oil, or other powerful purgatives immediately inverted the action of the stomach and were rejected;—in short calomel was the only medicine that would act upon them, and this not until her mouth was severely affected.

"From this cause she frequently had no evacuation for *six weeks* together; and in one year, when she was much weakened from repeated salivation, so that it was necessary to defer the administration of the calomel as long as possible, she had only one evacuation every *three months*, or *four* in the whole year. At the times her bowels acted she suffered immensely, her pains being more severe, if possible, than those of labour. The fecal matter when

passed was enormous in quantity, healthy in colour, and was formed into large round lumps or scybala, each certainly not less than a large foetal head, and so numerous as often to fill a common-sized pail.

"The disease proceeding, this lady oftentimes passed no urine for forty-eight hours, and then only by the aid of the catheter. Her hands also became rigidly contracted, her legs ceased to be flexible, and for many months she was unable to depress her lower jaw, so that her mouth was permanently closed. Her pulse, which was at first good, became at length rapid, she sank into a state of complete marasmus, and eventually the death she fervently prayed for closed a life embittered by a world of painful and unmitigated suffering.

"It was the strict injunction of this lady that her body should not be subjected to posthumous examination. None of the many medical men whom she had consulted were able to determine the existence of any organic alteration. The only disease to which it could be compared was cancer; but the enormous quantity and natural character of the feces when they were passed, showed the whole tract of the intestinal canal to be healthy: while mercury, which aggravates cancer, mitigated for a short time every symptom in this case. On the contrary, the many nervous symptoms, the contracted hand, the semiflexure of the legs, and the closed jaw, seem to connect this disease rather with a neurosis of the great sympathetic and subsequently of the brain and spinal cord: and this view of the case is much strengthened by the fact of her elder sister having been for many years a martyr to the tic douloureux; an affection from which her brother has also severely suffered.

"I remain, &c.,

(Signed)

"R. WILLIAMS.

"39, Bedford Place, Russel Square,
May 1st, 1839."

In my own experience instances of the *duration* of constipation varying from *five* to *fifteen* days are common. A gentleman under the care of Mr. Benjamin Phillips passed *thirty-seven* days without any evacuation; and in the elaborate dictionary of Dr. Copland numerous references will be found to the most extraordinary cases on record. One of great interest is related by O'Beirne* of a young lady, aged 19, who passed neither flatus nor feces for near *six months*, and who nevertheless was restored to perfect health. Another is published in the "Dictionnaire des Sciences Médicales," vol. vi. p. 257, in which the constipation had existed from birth: it was communicated to the Société d' Emulation de Paris, by M. Robe-Moreau. Although the individual ate a considerable quantity of food, he was in the habit of passing ten, twenty, thirty, forty days without any dejection: when he had dejections they were

* New Views of the Process of Defecation. By James O'Beirne, M.D. Dublin, 1833. p. 74. *et seq.*

always preceded by colic pains. Notwithstanding this he became an officer of the marine, and for twenty years voyaged in all climates. At the age of 42 he married. In 1806 the constipation was obstinate for four months, and threatened his life; yet, by the means employed, evacuations were procured, and continued for eight days successively, greatly to his relief: with these the stones of grapes eaten the year preceding passed. The improvement was of short duration: he was again overtaken, in 1809, with pains, vomiting, and most severe abdominal symptoms, which terminated his life, in the 54th year of his age. On dissection, an obstruction “cloison fibreuse” was discovered in the rectum, above which the gut was enormously distended, and contained thirty kilogrammes (about sixty pounds) de matières pultacées.

In the general treatment of disease, it is in vain to look for the due and peculiar influence of medicines, so long as the bowels are confined; for then some will not agree, as the preparations of iron; and others will not act, as those of opium. In two instances of delirium tremens, which occur to me, opium was given in very large doses; but, instead of tranquilizing the nervous system, it aggravated the delirium to madness, until the bowels, which were loaded, had acted freely; then the opium took effect, and induced that welcome sleep which led to recovery.

Further experience would justify me in extending this remark to all cases of delirium tremens, and in establishing, as a principle of treatment, the administration of cathartics prior to, or simultaneous with, the administration of opium. Sleep and amendment are not to be expected until the bowels have been thoroughly evacuated.

CHAPTER III.

OF THE CONSEQUENCES OF HABITUAL CONSTIPATION ON THE GENERAL HEALTH.

HABITUAL constipation varies in degree, as also do its effects; and the effects are rapid or slow, according to the temperament, the age and the constitution. The effects depend also materially on the length of time the body has been subject to habitual constipation, as well as on its greater or less degree. Habitual confinement of the bowels, through a period of twenty years,—a common circumstance,—will generate a train of consequences much more serious in character than when the habit has existed only for one year; and it will, therefore, be necessary to treat of the general effects under two heads, which may be called stages;—the first, embracing the earlier consequences; the second, the later or more remote.

OF THE FIRST STAGE.

The early consequences of habitual constipation accumulate less quickly in the young and phlegmatic than in the young and sanguine: they accumulate rapidly in the middle and later periods of life.

It is in young females that the early consequences are more frequently seen: they, unhappily for themselves, being, from causes to be discussed hereafter, generally subject to a confined state of the body. To this fact I would solicit the attention of my professional brethren, so early in life does a cause come into operation, which, continued through succeeding years, lays the foundation of most of those chronic diseases which embitter after-life.

The period at which young females begin to experience irregularity of the bowels is about the age of puberty. At first, the inconveniences are not such as to attract attention. Slight indisposition happens occasionally, and is attributed to any but the just cause, an unsrequent action of the bowels being sometimes thought by ladies of this age rather a desirable habit; but should these pages meet the eye of mothers, I beseech them, as they respect their children's health, to give attention to this subject; and I cannot omit, in this place, to urge upon all those who charge themselves with the education of the female sex, the same attention as a matter of duty, I would say of humanity; for no one thing is so likely to rouse into action, at this age, pulmonary, hepatic, or any other disease to which the individual may happen to be predisposed, as constipation of the bowels.

Constipation persisting, there soon manifest themselves the primary signs of alvine difficulty; namely, drowsiness and heaviness of the head. Then will be seen in many a darkness under the eyes, while the face is leuco-phlegmatic; or, if the temperament is sanguine, there will be an extraordinary flush of apparent health. To the heaviness of the head is, by and by, superadded pain of various character and situation; it may be an aching, a beating, or a throbbing pain in the forehead or temples, or over one eye, with a sense of great weight or giddiness. Flushings of the face occur, and transient heats over the whole body, though the feet are, at the same time, cold. The drowsiness increases; they find it difficult to rouse themselves to any kind of exertion. On going to bed they fall instantly into a sound sleep, which proves heavy but not refreshing; for, on awaking in the morning, they feel tired, unwilling to leave the bed, and if they do not get up at once, sleep quickly overcomes them only to increase the sense of fatigue when they awake again. Menstruation will, in some, continue regular in the midst of this disorder, particularly in constitutions of a rigid fibre; while, in those of a lax fibre it is often deficient or suppressed; and, in those of a sanguine temperament, abundant even to menorrhagia. Leucorrhœa seldom fails to supervene. The urinary secretion is apt to be copious and colourless; and flatulence in various degrees attends, although the digestion is not much, if at all, impaired.

CASE VIII.—The early consequences of habitual constipation in a young person of lax fibre. Menstruation scanty.

Mary Lewis, age 18, complains of a constant beating pain in the forehead, with giddiness, heaviness, dulness, and languor: her face is pale generally, but dark under the eyes, and rather bloated: she falls asleep immediately on going to bed, sleeps heavily all night, and in the morning gets up unwillingly and not much refreshed: her feet are apt to be cold; the appetite indifferent in the morning, good at dinner-time; the tongue and pulse not affected; the urine copious and pale; and menstruation has been scanty and irregular for the last seven months.

She has been subject to confined bowels for eighteen months past, since which all these complaints have supervened. She is in the habit of passing two or three days without a dejection, and, when at the closet, has much striving with little effect, the excretion being scanty, hard, and knotty, and passed with pain.

CASE IX.—The early consequences of habitual constipation. Menstruation regular.

1830, April. — Collins, aged 24, a housemaid, has of late been troubled with a confined state of the bowels, no action taking place for two, three, or four days, unless quickened by medicine.

Since her bowels have become irregular and constipated, she has experienced a heaviness in the head, is more than usually sleepy, so that in the day if she sits down she finds it difficult to keep herself awake. On going to bed she falls asleep at once, and rises in the morning with reluctance and a sense of weariness. If she gets up the moment she awakes, she then feels less tired; but if she neglects to do this, she afterwards leaves the bed with extreme unwillingness and a feeling of fatigue greater even than at the close of the day. She complains of some pain round the lower part of the back and above the pubes, and of some heat and fulness in the pelvis; but she menstruates regularly. Her appetite is tolerably good; though she has some uneasiness after food, and her tongue is clammy.

All the symptoms were soon removed by an alterative aperient course of medicine.

CASE X.—The early consequences of habitual constipation in a highly sanguine temperament. Menstruation too abundant.

1830, March.—Maria Turner, aged 21, complains of a throbbing pain across the forehead and through the temples; of heaviness, sleepiness, stupor, and reluctance to exertion: she could fall asleep at any time in the day: if she stoops she experiences a great weight in the forepart of the head and giddiness; and, when sitting at needlework, feels as if she must fall forward. Whatever is on the table seems to be falling in a slanting direction; if she looks at any object for a moment, it appears double and dim, and her eyes

strike fire; she has a noise in the head and a beating in the temples which makes her lower teeth strike the upper; she feels her head jarred by shaking a bed; and the sight even of anything in motion increases the headach, as also does unexpected noise. She is always hot about the head and flushed in the face, which gives her the aspect of rude health: if she takes porter or wine she flushes exceedingly and becomes stupidly heavy: she is apt to faint from heat, or exertion, or in a crowded church: her feet are intensely cold, while the hands burn.

She is no sooner in bed than she falls into a sound sleep, sleeps heavily all night, is very hot and yet requires much covering, and gets up with such reluctance and sense of fatigue, that she has scarcely resolution to put on her clothes. If she does not get out of bed the moment she awakes, she falls asleep again irresistibly, and is afterwards more tired than ever; her legs feel heavy as logs, and crampy pains run from the toe to the hip. Her spirits are dejected even to the frequent shedding of tears, although naturally she is very cheerful; and her temper, formerly good, is grown irritable. She is apprehensive and alarmed without particular cause; and starts at the sudden opening of a door. The appetite is pretty good, though capricious: she is troubled with flatulence and rumbling noise in the abdomen to such an extent as to be heard by those near her, and to oblige her sometimes to go out of church: she has eructations, but no acidity: is always thirsty, and the lips are parched: the tongue is very foul and thickly covered with a dirty yellowish white fur, and, in the morning, with froth, when she experiences the vitiated taste of decomposed eggs: the pulse is accelerated; she perspires easily and much about the head at night. She has frequent and urgent micturition with ardor urinæ: the urine is at one time pale and limpid, and passed in large quantities; at another it is scanty and thick, and emits an offensive odour. She menstruates abundantly every three weeks; and, in the intervals, is troubled with a copious leucorrhœa; both of which debilitate her exceedingly.

She has been subject to constipation of the bowels since the age of 19, now two years: during the last three months of which it has been more obstinate, no evacuation occurring oftener than once in five days, and then not without the aid of very powerful medicine. The dejections are always hard and knotty, with much slime. She feels constantly a bearing down and a kind of dragging sensation at the lower part of the rectum, causing a frequent indistinct desire, attended with great striving and the painful expulsion of only one or two scybals. The striving affects her head exceedingly. She has a burning heat and great itching about the anus; and frequent aching and griping pains in the belly, which draw her almost double.

All these complaints have gradually sprung up since the bowels first became constipated, and they were removed and the health re-established by restoring the regular and natural evacuation of

the intestinal canal, after the manner which will be pointed out in the chapter on treatment. The particular medicines which benefitted her were an electuary composed of *confection of senna and jalap*, which operated more effectually and with less distress than every other medicine she had tried; and immediately the bowels were thoroughly acted upon, all the unpleasant symptoms began to subside. Lavements, castor oil, and other aperients had little effect upon her. She afterwards derived much benefit from a stomachic aperient mixture; and the leucorrhœa was cured by the liquor aluminis c., diluted.

Remark.—Of the vast number of cases which have passed under my notice, I do not remember one in which so many distressing consequences have arisen in so short a space of time; a peculiarity to be attributed, in a great degree, to the highly sanguine and nervous temperament of the individual, and, in a less degree, perhaps, to predisposition; her mother, whose case will presently be related, having suffered from excessive constipation for many years.

The habitual excretory function of the bowel may be merely sluggish, rendering the evacuations uncertain as to time and unequal as to quantity; a state of things rather peculiar to persons of a melancholic temperament, in whom, whatever affects the mind, be it sadness or hilarity, affects in some degree the body. The mind, gloomy by constitution in these persons, retards, when depressed, the natural action of the large intestine, partly by obtunding the perceptive sensibility of the nervous system, partly by interrupting sympathetically the biliary secretion, and so depriving the excrementitious matter of its proper and efficient stimulus. While, on the other hand, emotions which exhilarate, which elate the mind, promote the action of the bowels by quickening the nervous sensibility generally, as well as by encouraging the secretory functions of the liver.

OF THE SECOND STAGE.

In tracing the early consequences of the habitual confinement of the body, it has been seen that they consist of a sympathetic determination of blood to the head which oppresses the brain and nervous system; and in a sympathetic irritation of the abdominal and pelvic viscera, which disturbs the functions of some organs and heightens the sensibility of others. Hitherto these effects are so directly dependent on their cause, as to subside when the cause is removed, and it is only necessary to restore the action of the bowels in order to re-establish the health. But, when the habitual constipation of the bowels has been longer in operation, the consequences assume a less tractable character; they become in a degree independent of the original cause, and require an individual consideration and independent treatment. The individual remote effects do not come within the scope of the present chapter; of which the remainder will be limited to an account of the aggravated consequences on the general health.

The determination of blood to the head which, in the first stage, produces drowsiness by day and heavy sleep by night, now gradually increasing with the prolonged existence of the cause, interferes at length with the functions of the brain. The mind becomes irritable, apprehensive; noises jar, distract the brain, and strong light overpowers the eye, while at the same time the delicate sensibility of these organs is dulled by the cerebral congestion, and the senses, though morbidly alive to great impressions, are no longer adapted to acute and nice perception. There is, in addition, pain in the head generally, greater in a particular part, as on one side; often of a distracting character, giving sometimes the sensation of the brain opening and shutting; and sooner or later the person falls down in an apoplectic fit. I have known many of these cases, some occurring in persons of a florid complexion and gross habit of body; some in individuals pale and thin; but, in all, there has existed for years the common cause, an obstinate and difficult state of the bowels.

So recently as September, 1838, a girl not more than 18 years of age was brought into the Westminster Hospital in a state of profound coma, of which she died; and on dissection, there was found a large effusion of blood in the left hemisphere and in the ventricles. She had been long affected with pain in the head over the eye, and had long suffered from habitual constipation of the bowels, the only cause to which the headache and consequent apoplexy could be attributed.

CASE XI.—Determination of blood to the head. Constipation.

Ellen Allen, age 26,—occupation sedentary; complained of continual weight and pain in the head, aggravated at times so as to stupify her,—of now and then feeling distracted as if she should lose her senses, when she was obliged to hold her head with both hands,—of great weight and beating over the eyes, and of a sense of their being bound down as if she could not open them,—of pain shooting down the spine. Her memory was become impaired, her eyesight weak; on looking steadily at her work, she would see double; various colours would float before her eyes, so confusing the sight that she would be obliged to desist from work.

She had been subject to constipated bowels for 12 or 15 years, having only two or three evacuations in the week, and these consisting merely of scybals like marbles, which were voided with great striving, difficulty, and pain. She does not remember when she had a natural dejection. She had lost much of her hair in consequence of her ill health.

CASE XII.—Apoplectic cerebral congestion. Constipation.

An unmarried lady, 28 years of age, of rigid fibre and fine frame of body, had been for many years subject to obstinate constipation,

the action of the bowels being procured with difficulty even by the strongest medicines. Her chief complaints had been a constant severe aching pain in the head and confusion of ideas; scanty menstruation; violent flushing of the face and neck, and a sensation of overpowering heat, when, on a sudden, one morning after breakfast, she fell down in an apoplectic fit, in which the breathing was ster torous, and sensibility and voluntary motion were suspended.

By the abstraction of blood the pressure on the brain was relieved, and by securing the action of the bowels recovery was gradually brought about, no paralysis having taken place.

CASE XIII.—Apoplexy from constipation—fatal.

Mrs. B., about 55 years of age, had suffered from obstinate constipation for the greater part of her life. She was of a gross habit of body, corpulent, and florid. Her ailments consisted in constant distracting pain in the head with a sense of fulness, and frequent overpowering flushing of the face. The difficulty experienced in obtaining alvine evacuations was excessive; she described her efforts at the closet as violent, ineffectual strivings, which only increased the desire without the power; the most she could force away being one or two hard knots of feculent matter. These strivings determined blood to the head to a degree as to give her the sensation that the head would burst; and eventually she fell down in a fit of apoplexy, which annihilated the functions of the brain, and destroyed life.

In common with the cerebral congestion there will be an impairment of the memory, a train of nervous symptoms, a general disorder of the digestive organs, and a co-existing irritation of the pelvic viscera, the sympathetic result of the retained excrementitious matter: all which states and affections will be best illustrated by appropriate examples.

CASE XIV.—Headache. Trouble in the functions of the brain and nervous system, and of the digestive organs. Irritation of the pelvic viscera. Humours in different parts of the body. Constipation.

Mrs. Ann Hemming, age 50, a widow, the mother of seven children, of a plethoric habit and melancholic temperament, had suffered from constipation of the bowels as long as she could remember. She thought she should never have an action of the bowels without the aid of medicine. She was affected with great heat about the rectum and vagina and during micturition, particularly if she omitted to take opening medicine. The urine was at one time copious and pale, at another high-coloured and scanty; little festering showed themselves about the pudenda, and blind boils about the anus. She had been troubled with leucorrhœa for some years; and menstruation had latterly been irregular—a circumstance to be expected at her period of life. She had long been liable to great heats in various parts of the body; and in the autumn she was subject to

an eruption behind the ears, attended with heat, irritation, and discharge.

She had frequent headache, with a sense of weight at the occiput, and a confusion of mind which embarrassed her greatly. Flashes of light darted through the eyes, and dazzling things appeared before her. She went to sleep readily, but on awaking had a pain in the head with a sensation as if it opened and shut at the top. She was nervous and alarmed; languid, uncertain, and unsteady for an hour after rising. The feet and hands, the feet particularly, were cold as if immersed in water, while the face and head burned. Formerly the appetite was good, lately precarious; she felt full for an hour or two after meals, was very flatulent, the flatus rolling about the belly and making a great and unpleasant noise. She had heartburn and occasional pain under the shoulder-blades; the skin was sallow, the tongue clean notwithstanding, and the pulse natural, the urine pale and copious.

Seven years ago she suffered much in her head, had great weight over the eyes, and for twelve months could not look up to the light, was confused and giddy, and her memory so bad, that if she went upstairs to fetch anything, she would forget what it was: she could no longer count or reckon correctly. For these symptoms she had been bled profusely; 150 leeches also had been applied to the head, which had been shaved and blistered; she had been cupped besides, and all in the space of six months. Since this injudicious treatment, she has been exceedingly nervous, which she attributes to the great loss of blood.

The great objects in the treatment of this case were, first, to regulate the action of the bowels, and then to give tone and vigour to the nervous system. To accomplish the first object, aperients composed of *magnesia* and *compound decoction of aloes* or *rhubarb* were given so as to produce one or two dejections daily and not more; for if the bowels acted several times her knees became tremulous. The *infusion of senna* was eventually resorted to, and found to be the most certain and efficacious as an aperient. These means being persevered in for several weeks, great benefit accrued. The heats and flushings passed away, the flatulence and fulness of the abdomen were diminished, and she was relieved from the apprehension and alarm she used to feel on awaking in the night. To tranquilize and invigorate the nervous system, the following were prescribed:—R. *Ferri Sulphatis*, *Quinæ Disulph.* aa gr. xij. *Extr. Colocynth. comp.* $\frac{3}{4}$ ij. *Opii*, gr. ij. M. et in *Pilulas* xxiv. divide. *Capiat* ii. *bis quotidie*.

From these remedies she derived great benefit: they regulated the bowels, strengthened her memory, and cured her nervous symptoms.

CASE XV.—*Cephalgia. Dyspepsia. Hypochondriasis. Leucorrhœa. Prolapsus ani. Constipation.*

Mary Cousins, age 32, of fair complexion but most hypochondriac aspect, having a fixed expression of the countenance, with the

eyes cast down and overhung by wrinkled eyebrows, applied for advice on the 21st of April, 1831. She complained of distressing pain in the head with weight across the forehead immediately above the eyebrows: she trembled much, her heart palpitated on the slightest hurry or alarm; she was restless, anxious, apprehensive, and alarmed lest she should go out of her mind. She kept alone, being disinclined to associate with any one. She was always disposed to sleep, but when she lay down experienced most distressing sensations. At night when she fell asleep, she started up, sat up in bed, and sometimes was obliged to pace the room: she awoke with a distracting pain in the head, and could not then bear to be spoken to. Her eyesight, though naturally good, was impaired, much more at one time than at another; she was frequently unable to thread a needle, and could not work by candlelight, things then appearing double and dim.

Her general health was very indifferent; she was thirsty, the tongue was foul, the taste unpleasant, the appetite capricious, and she was unable to take food in the morning till she had had some tea. She had a burning sensation all down the œsophagus, in the stomach and the bowels, with acid eructations and flatulence. She was frequently overcome with faintness and sudden sweats; the hands burned, while the feet were cold. For the last several months she had been troubled with leucorrhœa to a great degree, accompanied with ardor urinæ, and frequent micturition, the urine being sometimes pale and copious, at others high-coloured and scanty. She had a forcing sensation about the bladder and womb, and the rectum descended after striving at the closet, and would at times remain prolapsed for a day and a night, when it was very painful. She had not menstruated for twelve months past, prior to which time she had been regular. She was the mother of one child.

She had been subject to a confined state of the bowels for a very long period, passing a week and upwards without a dejection; constantly wanting to go the closet, but when there passing only a single scybal with violent efforts. She required strong medicine, without which she never had a free dejection.

CASE XVI.—Hemicrania. Leucorrhœa. Obstinate constipation.

1830. Mary Turner, age 44, a widow, (the mother of Maria Turner, Case X.), complained of an obstinate state of the bowels, many days passing without a dejection, which was then procured only by powerful medicine. The dejections were hard, like marbles, and covered with inspissated mucus which she described as a skin. She had a sense of weight at the anus, like an indistinct constant desire. If she did not obey an inclination at the moment, all efforts afterwards were ineffectual. She suffered from leucorrhœa and great heat about the pelvic viscera: the urine was often abundant and pale, often scanty and high-coloured. She suffered also from a most distressing sense of sinking at the stomach, attended sometimes with pain; and from flatulence and rumbling noise in the

bowels. The appetite was pretty good towards midday, but altogether deficient in the morning.

She was subject to violent headache, first on one side and then on the other; her eyesight, formerly very good, had failed much of late. Latterly she had become apprehensive without obvious cause; and in the night when she awoke, she had a great dread of losing her senses. She felt languid and weak, quickly tired, and disinclined to exertion. Menstruation, irregular for the last two years, had now ceased altogether.

The ordinary aperients were first tried, but they did not act efficiently upon the bowels. Then she took the *confection of senna* with *jalap*, which exonerated the bowels thoroughly, at the same time mildly, and produced remarkable relief: all her complaints began to diminish immediately; and, by perseverance in this medicine, with the further aid of *quinine* and *alteratives*, the functions of the digestive organs, as well as of the brain and nervous systems, were gradually improved, and the health restored.

CASE XVII.—Dyspepsia. Borborygmus. Palpitation. Irregular menstruation. Leucorrhœa. Constipation.

1830. Mary Ann Finley, aged 33, unmarried, of delicate frame and sanguine temperament, had suffered from constipated bowels for upwards of ten years, the dejections being knotty, covered with mucus, and passed with pain.

At first she experienced the usual consequences, heaviness of the head, sleepiness, and flushings and heats on trifling occasions. Then she was troubled with crampy pains in the abdomen and flatulent distention, the flatus rolling about the bowels and causing so much and so loud a rumbling noise as to oblige her to leave the room, and even, on some occasions, to go out of church. She felt full and oppressed after meals, had an unpleasant bitter taste in the mouth, no appetite at breakfast, yet at midday was sinking for food; but, if she passed this time without eating, she was afterwards careless about it. She had frequent desire to make water, had heat and irritation about all the pelvic viscera, as also a copious leucorrhœa, which drained and exhausted her. At night she was apt to be feverish and restless, and in the morning languid and tired, as if she had not been to bed. The feet were always cold, the hands hot. The dejections had latterly been soft, pale, scanty, and tenacious, not passing away freely; she had constant desire to exonerate the bowels, but her efforts at the closet were unavailing.

Menstruation had been painful and irregular for the last two years, both as to quantity and time; the periods recurring at intervals of six, five, and three weeks. Of late she has become nervous, and troubled with palpitation, and her spirits, which were naturally good, are depressed without any assignable cause.

On the 10th of January, 1830, I was called to her in the night on account of a violent palpitation of the heart and short hurried

respiration, which seemed to threaten her existence. She was unable to lie down for fear of suffocation, and had scarcely slept the two preceding nights. The pulse was rapid, small, and weak; but there was no preternatural heat of the skin, the lower part of the body being very cool. The abdomen was full of flatulence, the flatus rolling about with noise. The dejections were soft, insufficient, and offensive.

The history of the case led me to conclude that all her symptoms had originally been produced by the irregularity of the alvine excretions, and that the present signs depended on dyspepsia, rather than on any inflammatory condition of the viscera of the chest. Accordingly, I prescribed *camphor* and *hyoscyamus*, to appease the nervous system, and warm *rhubarb* draughts to act upon the bowels. After two draughts had been taken, the body was freely purged, much to the relief of the palpitation and other signs: the respiration also became freer and deeper, and she was able to lie down. From this period her health improved slowly but decidedly, by constant attention to the bowels; the regular action of which was better secured by *senna*, than by any other aperient. She afterwards derived great benefit from the *sulphate of iron*, and enjoyed a better state of health than for many years.

CASE XVIII.—Constipation alternating with purging. Indigestion.

March, 1830. Frances B—, age 42, had been always troubled with constipation of the bowels, and long subject to headach, giddiness, sleepiness, flushings, and so on. She was very nervous, and low-spirited; easily alarmed, and disturbed by frightful dreams. She had a bad taste in the mouth; the tongue was clean but frothy, and the appetite indifferent.

She complained particularly of violent sickness without vomiting; of great uneasiness from flatulent distention of the stomach, and of flatulent eructations: the distention was often so great that she was obliged to unlace her stays in the evening. The bowels were always confined, except that about every four days she was seized with pinching pains across the upper part of the colon, which lasted for one or two hours, when a purging would supervene, the dejections being at first lumpy and dark, and passed with cutting pain, then thin, frothy, copious, offensive, and hot, to the number of four or five, all of which would take place in the course of one or two hours. The pain then subsided, and the bowels became again confined for several days, when the pain and purging would recur. She was directed to regulate the bowels with the *carbonate* and *sulphate of magnesia*: which, being effected, the symptoms were all gradually relieved.

CHAPTER IV.

OF SICK-HEADACH, OR CEPHALALGIA WITH GASTRO-HEPATIC IRRITATION,
SYMPATHETIC OF HABITUAL CONSTIPATION.

THE popular term "sick-headach," is associated with a train of symptoms of every-day occurrence; and, though not altogether confined to females, it is they particularly who suffer from this affection.

An attack of sick-headach comes on for the most part suddenly. A lady, having gone to bed as well as usual, will awake in the morning with a sense of great weight in the head and pain in one temple, or over one eye; or, she may be seized with these symptoms at any period of the day; in which case she is obliged to retire to bed. After the pain has continued a few hours she grows sick, then vomits, throwing up quantities of greenish-yellow bile and mucus. The vomiting recurs at intervals and the stomach remains irritable, ejecting everything and resisting the influence of medicines of known efficacy in other cases of gastric irritation, till, at the expiration of twenty-four hours, the sickness and vomiting diminish and aperient medicines are retained, which in due time act upon the bowels, when the headach, sickness, and vomiting pass away. The individual soon regains her usual state of health, which continues without any material interruption till she is overtaken by another attack.

The same symptoms and sufferings now recur, take the same course, are relieved by the same means, and she again recovers to be again attacked after a certain interval. The recurrence of these paroxysms is more or less regular, so regular indeed as in many cases to be almost periodical: the periods varying in different individuals from one to five or six weeks; the length of interval depending much on the natural susceptibility of the individual, and on the urgency of the cause. The longer, also, persons have been afflicted with the sick-headach, the more frequently and the more severely do they suffer; as a general rule.

Now the effects of these repeated attacks upon the constitution accumulate; and, about the critical period of female life, lead to or end in apoplexy: or in visceral disease, either of the liver, uterus, stomach, or alimentary canal. And in the absence of lesion of any of these organs, the general health suffers, so that, in the intervals of freedom from the attacks, the appetite is bad, and the digestion so weak that the greatest strictness in regimen and constant self-denial are required to guard against and prevent the troubles of indigestion: and, even with all the care possible, the general health declines.

CASE XIX.—Sick-headach at the age of nine years. Constipation.

April 17, 1833. Mary Eaton, age nine years, has been subject to confined bowels from infancy, passing from three to seven days

without a dejection. Latterly she has been affected with sick-headach once a week or oftener; the attack coming on suddenly with a violent pain over the left eye, succeeded in a few hours by sickness and vomiting of green-yellow bile. She goes to bed, and after 24 hours recovers. Her appetite was generally good, but she was dull and slept heavily. Her mother was also of a very constipated habit of body and subject to sick-headach. By the use of aperient medicines the girl got better immediately; but if the bowels were neglected, a recurrence of the same symptoms was threatened.

CASE XX.—Sick-headach at the age of 14. Constipation.

1830. Ann Civial, aged 14. Her bowels have been confined habitually for several years, more obstinately within the last 12 months, five or six days elapsing without an evacuation: the dejections lumpy and black. Her face was sallow and dark, and puffy under the eyes, with a dull dejected expression; the tongue was white, the feet always cold.

She complained of pain in the forehead almost constant, with sense of weight so great as to make her drowsy and forgetful in the day: she fell asleep as soon as in bed, and would wake up in the night agitated as from the night-mare. She was subject to pain in the stomach and to attacks of sickness every three or four weeks, always preceded by a more violent pain in the forehead. The sickness would persist for two or three days, throwing up much yellow bile and mucus; but having subsided she would feel better, though for a few days only.

Oct. 16. She began to take the *aloes* and *myrrh pill* every night, and afterwards the *compound rhubarb pill* combined with the *blue pill*; but these did not operate sufficiently, and she made but little progress. On the 11th Nov. she commenced with the *carbonate and sulphate of magnesia* and *compound decoction of aloes*, which, taken twice a-day, acted freely on the bowels. When this was effected, all the symptoms gradually subsided, and in a few weeks it was reported that the pain and heaviness of the head were removed, the sickness had not returned, the pain in the stomach was gone; that her spirits were good, and her health restored.

CASE XXI.—Sick-headach. Cerebral congestion. Dyspepsia. Constipation.

1837, Nov. Roda Palmer, age 30, has for many years been troubled with a most obstinate state of bowels, requiring very strong medicine to act upon them, and this to be constantly repeated. Without the aid of powerful medicine the bowels would never be relieved. She has passed a fortnight without an action, which then was procured only by purgatives. The menstrua were regular: she was troubled with leucorrhœa.

For several years she has been afflicted with paroxysms of violent sick-headach, recurring frequently; in which the pain in the fore-

head would be distracting for two days, and, during this period, she would be deadly sick, though unable to vomit. Preceding these attacks, the eyes would be dizzy and vision indistinct, everything appearing to move in a zigzag direction. She has also been subject to pain in the stomach after food, with nausea and discharge of some watery fluid; great distention of the bowels; sense of coldness and weight at the stomach—"like cold water and like a lump of lead against which she could not breathe"—causing her respiration to be oppressed and her heart to palpitate.

In January her head became much worse, the pain very violent, and sense of weight and giddiness so great, that she could not hold her head up: the eyes were suffused and prominent, as if forced from their sockets: her ideas were confused; her memory so indistinct that when at work she would forget what she was doing. The appetite was indifferent, she was afraid to eat on account of the distress in the stomach which followed: her feet were always cold, while the face flushed frequently, and the head was hot.

At this time the cerebral congestion threatened a fit of apoplexy, which was averted by a loss of blood both from the arm and by cupping. The loss of blood gave her temporary relief, but weakened her. She took a variety of medicines for several months on the principle of regulating the bowels and improving the state of the stomach; as calomel, opium, magnesia, aloes, senna, camboge, bismuth; it being always difficult to act upon the bowels even by most powerful medicine.

Being at Leamington in the autumn of 1837, she applied to Mr. Middleton in order to be cupped for a return of the severe headache with determination of blood. This gentleman, like myself, was of opinion that all her symptoms, cerebral and gastric, depended on the constipated bowels, and therefore recommended her to try an aperient plan before she was cupped, her general aspect being opposed to the loss of blood. Mr. Middleton happily hit upon a combination of aperients that answered perfectly: they consisted of *Pil. Hydrarg.*; *Cambogia*; aa. gr. v., to be taken every night; and *Magnes. Sulph.* ʒjss.; *ex Decoc. Aloës c. f.* ʒjss. every morning. These operated better than any she had before taken, produced two or three dejections every morning; and from this period the affection of the head and the derangement of the stomach began and continued gradually to subside and improve, and in the course of three or four weeks she could take food with comfort and pleasure, and go about her occupations with alacrity.

Remarks.—No example has come within my knowledge more confirmatory of the fact of severe cerebral and gastro-hepatic disorder being consequent on habitual constipation; as proved, in the present instance, by the recovery of health through means adapted only to the regulation of the bowels.

Of the causes of Sick-headach.—The general and most prominent causes of the sick-headach is habitual constipation, as shown by the preceding cases, in which the patients, only 9 and 14 years of

age, had not suffered from any other disordered function than the constipation prior to the supervention of the sick-headach; and the sick-headach was, moreover, suspended and cured by means adapted to the removal of the constipation. The dependence of these attacks on the irregular state of the bowels, is particularly well marked in Case XXI., in which the cephalalgia and gastro-hepatic irritation, though severe and of long standing, were entirely relieved by the restoration of the natural functions of the bowels. Where patients have long suffered from these combined ailments, the propriety of attributing them to habitual constipation, as the *primary cause*, is not at once obvious; but if the history of any individual case is traced, it will be found that the constipation was the first departure from health, and that it preceded for a considerable period the development of the sick-headach.

As a *secondary cause* must be adduced indiscretion in diet, whether it consists in full meals and rich dishes, or in wine or other fermented liquors, malt liquor especially. These never fail to aggravate the sufferings; for even an ordinary liberal diet can scarcely be borne where constipation exists: whereas, if that is removed, the appetite and digestion improve, and individuals are no longer obliged to undergo the privations at table, which, otherwise, they are compelled to observe. Here and there I have met with an instance of sick-headach caused and kept up solely by high living, the bowels in these persons being regular: but the cases are so rare that they may be regarded as exceptions to the general rule.

Of the treatment.—The object in the treatment of sick-headach is twofold: first, to relieve the paroxysm; secondly, to prevent a recurrence.

When a paroxysm is fairly set in, medicine will be of little avail; the headache and vomiting will persist in spite of *creasote*, *opium*, *hydrocyanic acid*, *effervescing saline aperients*, and the like; either and all of which will generally be ejected from the stomach, and the symptoms continue their usual period of from 24 to 72 hours. It is of importance, however, to bring about a free action of the bowels as soon as possible, to which end *coccygynth*, *calomel*, and *opium* may be given. The cathartic pills should soon be followed by a *senna and salts draught*, which, if rejected, may nevertheless, as also the pills, be repeated once in eight hours till they have operated freely. Where the constipation is very great, the action of the above medicines should be facilitated by lavements.

By the time the bowels have yielded to the means employed, the paroxysm will be passing away, when measures adapted to prevent its recurrence should be resorted to. After the subsidence of a paroxysm, the bowels require to be kept freely open in order that the great quantity of dark-green bile secreted at this time by the liver—which has been congested and is now disgorging itself,—should be carried off. This having been accomplished, the state of the brain and liver should be inquired into, and if determination of blood to either of these organs,—as indicated by heaviness of the

head and a sense of fulness and uneasiness in the right hypochondrium—should exist, blood to a moderate extent ought to be abstracted by cupping or by leeches; and, if the habit should be plethoric, the loss of blood from the arm, to the amount of eight or twelve ounces, will be of essential service, and aid in maintaining the integrity of these organs.

These organs being secured from the effects of congestion, a course of medicine especially directed to regulate and keep freely open the bowels should be commenced and persevered in, not merely for a week or a fortnight, but for several months, in order that the natural and spontaneous action of the intestinal canal may be brought about. Of the kind and quantity of aperient medicine, and of the frequency with which it should be administered, I shall speak in the chapter "On the Use of Aperients." Suffice it now to say that some constitutions will require and be benefited by powerful purgatives daily repeated for perhaps a week, while others will only bear mild aperients, at any time; all being, nevertheless, benefited by a regular action of the bowels by whatever means brought about. The same remark applies to blood-letting; the propriety and extent of which must be determined by the age, habit, and strength of the patient.

In addition to aperients and combined with them, *alkalis* are, for the most part, serviceable, especially where there is heat of stomach and flushing of the face. *Magnesia*, in substance or in solution, is, on the whole, perhaps, the best; though circumstances may give a preference to *soda*, *potass*, or *ammonia*. *Soda-water* is often an agreeable and proper beverage; to which a small quantity of brandy may be added. Malt liquor must be entirely relinquished; and wine taken sparingly, not exceeding one glass; sherry the best. Where there is strength of frame and constitution, an abstinence from all fermented liquors will not only be borne, but be followed by decided benefit.

Of *Diet*, — which, like aperients, forms an important point in the treatment of all the "consequences" enumerated in this work,—I propose to speak hereafter, and will therefore not touch upon the subject at this time.

CHAPTER V.

OF DISEASES OF THE STOMACH AS CONSEQUENCES OF HABITUAL CONSTIPATION.

Indigestion. Gastrodynia. Pyrosis. Subacute-chronic inflammation and organic disease of the stomach.

THE several affections—the first excepted—named at the head of this chapter, result, according to my experience, from the same

pathological condition of the stomach, varying in degree and stage, and are to be attributed to habitual constipation as the primary or remote, and even as the exciting cause, more frequently than any other. My object, at the present, is to put habitual constipation prominently forward as a cause of disorders of the stomach, instead of regarding it merely as an incidental or attendant symptom.

I do not advance the opinion that habitual constipation is the exclusive cause of the above affections, but that it is the most frequent; a point I urge the more, that, in the treatment of these affections, remedies may be directed to the relief and removal of the constipation, as an essential and chief means of relieving and removing the disorders of the stomach. Not that, in the majority of instances, attention directed only to the relief of the constipation will suffice and supersede all other treatment; for effects, when of long standing, will often persist independent of the original cause, and require means specially adapted to them. Where, however, the cases are recent, the gastric symptoms will yield to, and be entirely removed by, attention to the bowels: as will be shown by instances to be adduced.

Simple Indigestion,—as indicated by a sense of fulness and distension of the stomach after meals, a bitter taste in the mouth, flatulent eructations, flushings of the face, and heaviness of the head,—is frequently sympathetic of habitual constipation; and, when so, is speedily relieved by a proper course of aperient medicines: the stomach recovering its powers of digestion as soon as the excretory office of the large intestine has been restored.

As it forms no part of the plan of this work to treat specially and at length of Indigestion,—a subject already ably and fully written upon by Drs. Phillip, James Johnson, Paris, Abercrombie, and others,—I take cognisance of it no further than is necessary in considering it a very frequent consequence of habitual constipation.

By *Gastrodynia*—literally, pain in the stomach—is understood uneasy or painful sensations in the stomach after food; which may occur on single occasions only, or daily, more or less, for a length of time. It is variously described as a feeling of heaviness, weight, or absolute pain of an obtuse aching character, coming on usually after a meal, particularly dinner, sometimes immediately the food is swallowed, at other times not for one, two, or three hours, when the digested portions are passing on towards the pylorus.

This gastrodynia,—called not inappropriately by Dr. James Johnson, “*morbid sensibility*,”—exists at times as the only symptom, the appetite and the digestion remaining good: but more generally it is one of the many signs of impaired and difficult digestion.

I have known gastrodynia caused accidentally by a hard pill taken on an empty stomach; the pain commencing when the pill, undissolved, may be supposed to have reached or to be passing the pylorus. This pain may continue for twenty minutes, and then cease suddenly and entirely. It is of an obtuse aching character, and at-

tended with nausea and the discharge of a watery fluid from the mouth. Accompanying the gastrodynia there is often pain referred to the inferior and middle regions of the sternum, which the patient supposes to arise from an affection of the chest, but which is, in fact, sympathetic of the gastric disorder. On this symptom I would lay some stress. I have observed this pain in the region of the sternum on a great many occasions, and I do not remember an instance in which it proceeded from any cause, pulmonary or cardiac, within the chest, but was always associated with disorder of the stomach, and abated and passed away according and as soon as this disorder was relieved and cured.

Seeing that this impatience of the presence of food, this gastrodynia or morbid sensibility, always precedes, and is often followed by, organic disease of the stomach, I am disposed to regard it as dependent on a pathological congestion of greater or less degree. Of this, as also of the treatment, I propose to speak further under the head "Pyrosis:" and shall now, therefore, only adduce three cases in illustration.

CASE XXII.—Gastrodynia, or increased organic sensibility of the stomach. Habitual constipation.

August, 1839.—A young woman, 22 years of age, her occupation sedentary, complained of having been affected for six or eight months with a sense of fulness and uneasiness, almost amounting to pain, in the region of the stomach after dinner, lasting for two or three hours, with nausea and headach. She menstruated regularly; but her bowels were much constipated habitually.

To take Hydrg. Chloridi gr. ss., Opii gr. $\frac{1}{4}$ in the form of pill daily after dinner; and the Mistura Magnesiae cum Magnesiae Sulphate et Decocito Aloës Comp. at bedtime, in sufficient quantity to regulate the bowels.

The calomel and opium relieved the gastrodynia immediately and perfectly; the mixture acted upon the bowels, and by perseverance she recovered without any change of plan.

In another case very similar to the above, the uneasiness amounted to pain, came on immediately after having taken food, and extended up the sternum; so that the patient pointed to the sternum as the seat of suffering, rather than to the stomach. This sternal pain proved to be sympathetic of the gastric disorder, and subsided as the functions of the stomach were restored.

CASE XXIII.—Gastrodynia, or increased organic sensibility of the stomach, with attacks of violent sick-headach. Habitual constipation.

1839, July 3d. Mrs. D—, age 38, married, no child, menstruation regular, but excessively painful. Complained of a sense of weakness with pain almost constant in the stomach, increased after dinner, when she experienced also a sense of fulness. She suffered moreover from a sense of sinking at the stomach and of want of food; yet if she took any it made her uneasy. She was much affected with headach, the pain—fixed sometimes in one, sometimes in the other temple—was aggravated distractingly almost every week; when there would supervene vomiting of salt water and bile.

She was habitually costive; which state had preceded all her other ailments for many years. She has been under the necessity of taking a great deal of opening medicine, or the pain in the head would have been insufferable. She was subject to flushings in the face and cold feet: and had been long troubled with leucorrhœa. She was able to take very little food, and was low in flesh and strength.

To apply a blister to the region of the stomach; to take Hydrarg. Chlorid. gr. ss., Opii gr. $\frac{1}{4}$ after breakfast and dinner; and Magnes. Carbon. gr. xv., Decoct. Aloës c. f. $\frac{3}{4}$ ss. daily in the morning.

From these remedies she derived great benefit. The calomel and opium agreed well, diminished the pain in the stomach and the uneasiness after food: the aloes and magnesia regulated the bowels; but if she did not attend to the calls of nature instantly, then she could not have an evacuation perhaps for two days. Her appetite improved, her spirits grew better, the headach greatly diminished, and she did not suffer from an attack of vomiting after the plan of treatment was commenced. The leucorrhœa was benefited by an alum wash. The medicines having been taken for six weeks, she was directed to omit the pills lest the gums should become affected, but to continue the aperient mixture. For the dysmenorrhœa, to take *Extracti Belladonnæ* gr. $\frac{1}{4}$ twice a day while the pain was urgent.

At the expiration of three months this patient's complaints were removed, and she had begun to gain flesh. The belladonna had rendered the menstrual period less painful, and she now required no other treatment than to be put in possession of means to regulate the bowels. For this purpose the infusion of senna was recommended and answered perfectly.

CASE XXIV.—*Subacute-chronic gastritis. Habitual constipation.*

Mrs. W—, aged 55, in whom menstruation ceased three years ago, presented herself for advice on the 10th of October, 1839. She had been troubled with a very confined state of the bowels for twenty years, the dejections being scanty and hard: yet strong medicine was not required to procure evacuations. Her stomach had been in an indifferent state for a considerable time; worse within the last six months.

She was afflicted with pain in the pit of the stomach running through to the back and shoulders, aggravated after meals, particularly after dinner, when she felt full and distended and suffered very much until the stomach was emptied by vomiting, which usually happened in about one hour after the meal. So unwell did she feel while the food remained in the stomach that she would often take warm salt and water to accelerate the vomiting; which having taken place, relief followed, though the pain continued in a less degree. The matter cast up was acid, and produced great heat in the throat as it passed. She could retain breakfast on the stomach

with some trouble, but not dinner. Her feet and legs were always cold; and cold weather affected her very much, animal heat being insufficiently generated. She was pale, sallow, and emaciated.

To apply a blister to the region of the pylorus. To take two table-spoonfuls of the following mixture twice a day:—Of Sodaæ Sesquicarb. $\frac{3}{j}$; Magnes. Carb. $\frac{3}{j}$ j.; Rhei Pulv. gr. xv.; Sp. Ammon. Arom. f. $\frac{3}{ij}$ j.; Tinct. Hyoscyami f. $\frac{3}{ss}$ s.; Aquæ Cinnam., Aquæ, aa. f. $\frac{3}{ij}$ jss. M. To rub in about two scruples of the following liniment upon the inside of the thigh night and morning:—R. Hydrarg. Chloridi $\frac{3}{j}$; Adipis $\frac{3}{j}$. M.

By the 13th of November, five weeks from the commencement of the treatment, her mouth had become rather sore and her complaints removed. The blister relieved the stomach: the mixture neutralised the acidity, and acted upon the bowels once every day: the pain after meals and the vomiting ceased; her digestion became good; her legs and feet warm; and she had begun to regain flesh.

In the above three cases the gastrodynia, or increase of the organic sensibility of the stomach, existed without any watery discharge from the mouth: but I believe that they nevertheless depended upon a subacute pathological congestion of the pyloric extremity of the stomach, evidenced more particularly in the two last cases by the loss of flesh in addition to the gastric symptoms. The tendency of these cases was to terminate in thickening and induration of the tissues of the stomach, and occlusion more or less of the pylorus.

Pyrosis or Water-brash, Subacute-chronic Inflammation and Organic Disease of the Stomach.—The Water-brash, Pyrosis, Cardialgia, Sputatoria, or Gastrodynia Sputatoria, as variously called by Linnaeus, Cullen, and James Curry—on account of the most prominent symptoms being heat and pain in the stomach, with discharge of a clear watery and ratherropy fluid by the mouth—is too frequently regarded only as a functional disorder of the stomach. Of which opinion appear to be Linnaeus, Sauvages, Cullen, Pemberton, Baillie, &c.

The history of cases of pyrosis, traced through their several stages from the first symptoms of disordered stomach, will, I think, show that, when pain in the stomach occurs and continues to occur from the presence of food even in moderate or small quantities, there is not merely a heightened organic sensibility of the stomach depending on irritation, but on a subacute inflammation.

This opinion is not invalidated by the fact that many suffer from pyrosis year after year, yet live to a good age: for although they live, they emaciate to a degree that plainly indicates the presence of visceral disease. Nor is it invalidated by the fact that many retain the appetite not only unimpaired, but very great: for this desire for food arises, not from the healthy condition of the stomach, or a corresponding power of digestion, but from the want of nutrition, from the want of blood, by the wasted and emaciated body. The appetite is often good, but not so the digestion: for the instant the appetite is appeased by food, that instant the stomach

labours, suffers, and continues to suffer, until either the contents of the stomach have passed the pylorus, or have been thrown up by vomiting. And no sooner is the food ejected from the stomach than the appetite returns, and, being again gratified, again the uneasiness and pain recur.

It is contrary to my experience that pyrosis exists "often without any symptoms of dyspepsia."* I cannot recal to mind one instance in which the digestion was not only not good but slow, difficult, painful, imperfect, and frequently altogether impossible. The appetite often remains good, but not the digestion. I cannot, therefore, but regard Cullen and his followers as in error when they state that persons affected with pyrosis are often free from dyspepsia.

It appears to me that two very different affections have been confounded together by writers on the water-brash: I mean the dyspepsia ebriosorum and the pyrosis.

In the drunkard's dyspepsy there is the morning retching with eructations of a thin glairy mucus or watery phlegm, often sour or acrid, from an empty stomach.

In the pyrosis, there is a discharge of a clear, thin, insipid, watery and rather ropy fluid from the mouth, preceded by heat, uneasiness, or pain in the stomach, and nausea; and supervening not when the stomach is empty, but after a meal; and not so frequently in the morning as after dinner.

In their description of pyrosis, Cullen, Mason Good, and some others, speak of its consisting of an "eruption in considerable abundance of a thin, watery liquor, chiefly in the morning, after food has been abstained from for many hours, and the stomach has nothing in its cavity but its own fluids;"† which applies to the drunkard's dyspepsia rather than to pyrosis. The following cases will furnish full particulars of the history and course of pyrosis in its mildest and most severe forms; and afford evidence on which to ground and substantiate the opinion that the assemblage of symptoms constituting the pyrosis depends immediately on a subacute-chronic inflammation of the stomach—not of its mucous membrane only, as is generally believed, but rather of the tissues intervening between it and the serous tunic—excited in the first instance, and afterwards kept up and aggravated by habitual constipation, in the greater number of instances that occur in this country.

CASE XXV.—Pyrosis from habitual constipation, cured by alteratives and aperients.

1830, November 4. Mary Roxbury, age 58, a patient of the Public Dispensary, was affected with a discharge of clear ropy fluid "from the stomach" three or four times a day, taking place about an hour after a meal, and preceded and accompanied by sickness;

* First Lines of the Practice of Physic. By William Cullen, M.D. Edin. 1781, vol. iv. p. 15

† Study of Medicine by Mason Good, M.D. vol. i. p. 119.

but no food was thrown up with the water. She did not suffer from severe pain, but from a very uneasy fulness in the stomach after food, which was relieved by the discharge of the water. Her bowels were always confined, and had been so from a girl, frequently passing a week without a dejection. She was much troubled with flatulence, borborygmus, haemorrhoids, and prolapsus. The water-brash had existed from the period when menstruation ceased, now 16 years. *She took Pilul. Hydrarg. gr. v. every other night, and Magnes. Carb. gr. xv. Rhei, gr. v. twice a-day,* which agreed well, and were continued four weeks.

By this time the water-brash had nearly ceased; and the uneasiness after food, the flatulence and the prolapsus had been relieved. These medicines not acting quite freely upon the bowels were discontinued, and the *confection of senna*, in the dose of two drachms every night, substituted; which had the desired effect. The function of the bowels being restored, the appetite and digestion improved, and she was discharged at the end of seven weeks free from complaint.

Remarks.—In describing the clear ropy fluid as discharged from the stomach in this and in subsequent cases, I have followed the statement of the patient as the most faithful history. But it will by and by be shown that the patient's notion—which is invariable—of the fluid proceeding from the stomach, is fallacious: the source of it being the salivary glands and muciparous follicles of the mouth and throat.

CASE XXVI.—Pyrosis, hereditary. Constipation.

March 11, 1835. Margaret Williams, a maid-servant, complains of pain in the epigastrium, with tenderness on pressure, extending to the left hypochondrium and mamma, through to the back and left shoulder. She feels comfortable for several hours in the morning, but, as soon as she has breakfasted, she becomes dreadfully uneasy, the pain being sharp and severe. Sickness succeeds, and, in ten minutes, a clear, ropy water runs from the mouth. She now again feels comfortable, and so continues till after dinner, when the same kind of pain and sickness recur with a sense of fulness. The pain persists for half or three-quarters of an hour, with thirst; then she grows sick and discharges the watery fluid in much greater quantity, to the extent even of three-quarters of a pint, quite clear and unmixed with food. She is again easy, until she has taken tea or supper, when the symptoms return. While the stomach is empty she feels better. She never takes food without pain. Her appetite varies; at one time it is pretty good, at another impaired. She has been affected with this complaint for the last four months, during which she has become very thin. Menstruation is regular as to time, but small in quantity. Her feet are cold; her face flushes; the surface of the tongue is white, its body red; and she is liable to acid eructations. Her bowels are always confined; the dejections are scybalous and occur not oftener than once in three days. Her mother also had water-brash.

To take Hydrarg. Cholrid. gr. i., Opii. gr. $\frac{1}{2}$ night and morning; and Rhei. Potassæ Sulphatis, aa. gr. x. every morning. In three weeks she reported much better, all the symptoms be alleviated, and sickness seldom recurring; the bowels rather confined, and the mouth slightly sore from the calomel. *To take Pilul. Rhei Comp. gr. v after dinner daily; and to repeat the calomel and opium once a day.* From this time I saw the patient no more.

CASE XXVII.—Pyrosis, with vomiting after food, severe and of long standing, relieved by the nux vomica. Obstinate constipation.

Hannah Connel, a full-grown, and formerly a stout and healthy Irish woman, was admitted into Guy's Hospital the 12th of March, 1828, under the care of Dr. Bright. She had had twelve children, worked hard, and reported herself of regular habits, taking, however, a glass of gin in the morning. Menstruation had ceased two years; up to which period it had been always regular and copious. Leucorrhœa succeeded.

About four years ago she began to be affected with a running of water from the mouth, and pain, heat, and heartburn in the stomach and up the oesophagus; and after the water-brash had existed one year, there supervened vomiting of the food. In this state she came into the hospital under Dr. Back, and after a month was discharged relieved: but the complaints soon returned, and have persisted and increased ever since.

She is now affected with pain and a sense of fulness in the pit of the stomach; with a discharge of a clear, watery, and ropy fluid from the mouth, and vomiting as frequently as from six to twelve times in the day, particularly in the morning and evening. The quantity of fluid discharged will occasionally exceed a pint at one time, and frequently four pints in the course of the day. The watery discharge, together with vomiting, will occur sometimes in the night; and vomiting on every occasion of taking food, of whatever kind, which continues till everything is cast from the stomach; when she becomes easy. So long as she refrains from food she is comparatively free from suffering; but her appetite is good, and she feels hungry immediately after the stomach has rejected the food previously taken. She complains of violent heat and scalding heartburn rising from the stomach to the throat, most urgent in the fore and afternoon; also of burning heat in the palms of the hands, and flushings in the face.

Her bowels are always very much confined, dejections occurring not oftener than once in seven, ten, or fourteen days, and then not without the aid of medicine. She does not remember the time when she had a natural evacuation. The abdomen is distended with flatus, giving the appearance of pregnancy. The urine is hot, scanty, red and turbid: she suffers from piles, heat about the rectum, and painful dejections; and is troubled with a copious leucorrhœa. She is very much emaciated.

The treatment was as follows:—March 13. Pil. Aloës cum

Myrrha, gr. xv. bis die : Nucis Vomicæ gr. ii. ter die. The nux vomica was gradually increased to gr. v. On the 26th the report states, she is altogether much better: the discharge of fluid, and the vomiting of food take place every evening regularly, but not at any other part of the day: and once she passed the whole day free. The vomiting in the evening is preceded for a quarter of an hour by hiccup, and a burning heat centring in the stomach and extending up to the throat. On the 31st, the nux vomica was increased to gr. vii., and castor oil, daily, in the morning, was substituted for the aloes and myrrh pill; and on the 7th of April it was reported that she had two or three evacuations daily, that the pain was gone, the vomiting subsided, and that she felt well.

CASE XXVIII.—Pyrosis with vomiting of food. Constipation. Cured by counter-irritation, hydrocyanic acid, and aperients.

January, 1832. Mrs. E —, aged 34, applied to me early in this month, complaining of pain in the inferior region of the sternum and pit of the stomach, going through to the back and up to the right shoulder; and of throwing up first water and then food from the stomach after every meal, sometimes immediately, sometimes in one or two hours, according as she kept still or moved about: if she moved about quickly after a meal, she could not retain the food on the stomach, it was rejected at once. After the stomach had emptied itself, she, on all occasions, became easier. The matter thrown up by vomiting was sour and bitter. The pain was increased immediately after food, and accompanied with a sense of weight and distention which often induced her to refrain from food, that she might avoid the pain: but then she grew so faint and low, that she was obliged to eat. Temporary relief to the pain after meals was found from neat spirits.

The bowels were very much confined, four or five days elapsing without a dejection, unless she took medicine: the dejections always lumpy, and passed with painful striving. She suffered from heat about the rectum, womb, and bladder; from ardor urinæ and leucorrhœa. Her hands and feet were cold, but she was frequently overcome almost to fainting with heat and flushings about the head and face. She could not bear a close room. She slept heavily, and got up fatigued. The tongue was white and furred, and she had a disagreeable bitter taste in the mouth. The pulse was small and weak.

She had been affected with the water-brash at irregular times for two or three years, and regularly two or three times a day for the last twelve months, and with the pain in the stomach for six months, during the last three of which has been severe, and attended with a burning heat. For the last eight years she has suffered much from constipation, flushings in the face, and heaviness across the forehead, followed by indigestion, and all the other symptoms. She has been losing flesh for the last two or three months, and is now seriously emaciated.

To apply a blister to the region of the stomach. To take Magnes. Carb. gr. xv., Magnes. Sulphat. $\frac{3}{i}$ i., Tinct. Sennæ, f. $\frac{3}{i}$ i. Aquæ Menthæ Virid. f. $\frac{3}{i}$ j. twice a day in water.

Much relief was derived from the blister, and although continuing to feel sick and in pain after meals, she has not thrown up either water or food since she came under treatment. The bowels act regularly, but, as she suffers from acidity and the heat at stomach, the above medicines were discontinued after a fortnight, and the following substituted :—

Magnes. Carb. $\frac{3}{s}$ s.; Soda Sesquicarb. gr. xv. twice a day; R Acidi Hydrocyanici (Scheelii) f. $\frac{3}{s}$ s.; Aquæ destillat. f. $\frac{3}{i}$ j. A tea-spoonful to be taken when the pain in the stomach is urgent.

February 7. The pain, which still supervenes after food, is relieved in ten minutes by the hydrocyanic acid. When first under treatment, she lived on thick gruel, latterly on boiled mutton, which has agreed well. She remains quiet, and in the horizontal position after meals. She is considerably better, eats with appetite, begins to gain flesh and strength. The bowels act two or three times a day, and the dejections, which were at first dark, are of good colour. By pursuing the same treatment, observing the same strictness in diet and rest after food, she, in the course of some weeks, was relieved of all her symptoms and restored to pretty good health.

Remarks.—In this case there can be little doubt of there having existed a subacute-chronic pathological congestion of the pyloric extremity of the stomach, so interfering with digestion and the passage of the chyme into the duodenum as to prevent the body being properly nourished, and induce an alarming universal atrophy. The prospect was confirmed pyloric disease. It affords a good example of what may be accomplished, where the diseased action is not malignant, by treatment based on the principle of restoring the function of the bowels,—of appeasing the heightened organic sensibility of the stomach,—and of determining to the neighbouring surface by counter-irritation.

CASE XXIX.—Pyrosis. Subacute-chronic inflammation and disease of the stomach—hereditary. Constipation.

Mrs. —— came under care in September, 1839. She had been affected with water-brash for many years, and, in consequence of suffering great uneasiness after food, has lived in the most abstemious manner, avoiding everything of a questionable or indigestible nature, abstaining altogether from wine, and taking scarcely food enough to nourish the body. Even with these precautions, she generally vomited once after dinner, as well as on every occasion when she departed in a slight degree from the more rigid system of diet.

Her bowels have been habitually confined for many years, yet less so within the last twelve months. Her father was also afflicted with the water-brash for a long period, and troubled with habitual constipation.

She was of middle age, sallow, very pale, in an alarming state of anaemia and atrophy, and so weak as not to be able to walk, or even to sit up without fainting. Her appetite was trifling, and after food, however small the quantity, she suffered uneasiness in the stomach, and, in two or three hours, had a discharge of a ropy watery fluid by the mouth, succeeded by vomiting. Her pulse was small and feeble, but not frequent: the tongue clean, moist, and pale. Her stomach was so squeamish and capricious, that her meals and choice of food were most spare and limited.

The same difficulty was felt in regard to medicine as to diet. She was so much and so quickly depressed by mercury, in any form, as have an almost insuperable aversion from it.

Pills she could not swallow; and liquid medicine was so disagreeable to her palate and stomach that they were rejected. Neither could she bear counter-irritation of any kind, partly because her skin was irritable, and partly because of the annoyance. Fettered by these difficulties, the treatment was necessarily of the mildest description. By much persuasion she was induced to take $\frac{1}{2}$ of a grain of calomel with the same quantity of opium twice a-day in the form of powder: and the infusion of senna in doses of 5ij, at bedtime, to secure the action of the bowels.

The calomel and opium were persevered in for five days with advantage, when, the patient believing she felt low from the mercury, it, as also the opium, was omitted; and the trisnitrate of bismuth in the quantity of gr. ij. substituted. The senna, flavoured with liquorice, answered most effectually the purpose of regulating the bowels; a point of the first importance. As she felt thirsty and rather hot one evening, I persuaded her to try a weak effervescent draught, but it was quickly thrown up, and with it all the food she had taken during the day.

Towards the end of October she spat up a little blood, which alarmed her very much, but happily proved of no moment. It was evidently from the throat. For this the diluted nitric acid was prescribed in the proportion of m. xv. to f. 3iv. of water, the whole to be taken in the course of the day. It proved agreeable to her palate and stomach, refreshed her, and rather improved the appetite. In the course of a fortnight, the acid was combined with the compound decoction of guaiacum and a little syrup of lemon, which, being a pleasant mixture, was taken twice a-day in very small doses.

At the present time, November the 16th, 1839, she is considerably improved in health, more, however, as respects comfort than increase of flesh and strength, though in these respects she is advancing. Her bowels act most regularly by the aid of the senna. She takes the smallest possible quantities of food, but they are retained on the stomach and digested without uneasiness, a comfort she has not experienced for many years past. Her spirits are good; and her sleep sound and tranquil as that of an infant. Finding that a weak acid suited the stomach, I advised her to try a little perry as a beverage; which has suited her excellently.

Remarks.—The improvement in this case, which now bids fair for recovery, I attribute very much to the regularity of the bowels, and to the perfectly tranquil mode of life this lady has led of late. Her daughter having married, and her sons being from home, she is left entirely to herself, is not fatigued by conversation, and is able to remain undisturbed after food, and in the horizontal position.

This case has been introduced partly as an example of the pyrosis being hereditary, and partly to show the difficulties we have at times to encounter from constitutional and other peculiarities. The increased organic sensibility of the stomach and the daily vomiting, coupled with the emaciation and inability to take food, are conclusive of there being disease of the stomach; thickening probably of its tissues, contraction of its cavity generally, and rigidity of the pylorus; the result of a very subacute-chronic pathological congestion. The probability that the stomach is very much contracted rests on the circumstance of this patient not being able to swallow any thing suddenly, even in moderate quantity, without at once being sick. Even now that she is better, if she drinks a wine-glassfull of fluid at once, it is returned immediately.

Much might, I think, be effected in similar cases by nourishing the body through the means of injections per alvum, which would allow the stomach to remain at rest and unannoyed by food or the process of digestion. In the present instance such a resource would not have been sanctioned by the patient.

CASE XXX.—Pyrosis—hereditary. Constipation.

1830, March 6. Henry Sutton, aged 30, a sailor, applied at the Public Dispensary on account of a watery discharge "from the stomach," with which he had been troubled for many years. It came on generally about noon, sometimes very suddenly, was always preceded by sickness, and followed by vomiting if there was any food in the stomach, but not otherwise. He has been subject to constipation of the bowels from boyhood. He stated that his mother had the water-brash for more than thirty years; that she also suffered from obstinate constipation; and that she had no evacuation for six weeks previous to her death, which occurred at the age of 61.

Remark.—This case is recorded with a view simply to state the facts of the mother and son having been the subjects both of water-brash and of habitual constipation: which, with other cases of a similar kind, afford grounds for regarding the water-brash as hereditary on some occasions.

CASE XXXI.—Pyrosis—hereditary in three generations. Habitual constipation.

1830. Joseph Wray, age 47, a shoemaker of regular habits, a patient of the Public Dispensary, has been affected with the water-brash for 20 years, but not constantly; it being irregular in its attack, though coming on more frequently after broths, and when his bowels are most confined and flatulent. The discharge of water

amounts to a tea-cupful, is preceded by pain in the stomach for a quarter of an hour, and accompanied with heartburn.

He has been troubled with constipation of the bowels for upwards of 20 years, indeed they were never regular; a week sometimes elapsing without a dejection, though usually three or four days. He always required medicine, which having acted he became costive again. If he refrained from medicine, "it would break forth" by a spontaneous purging; constipation succeeding. For 14 or 15 years he has suffered from headache at the forepart, and from heaviness and stupor, so that he had no spirit to move or follow his business. His appetite has nevertheless been good; yet after food he would be much annoyed by acidity and flatulent eructation.

Joseph Wray's father had the water-brash; and his eldest son, now 21 years of age, has it also; and is, moreover, affected with confined bowels.

Remark.—This incomplete case is adduced on account of its history, and of the remarkable occurrence of the water-brash in three successive generations; namely, the father, son, and grandson: strongly marking hereditary influence.

CASE XXXII.—Disease of the cardiac extremity of the stomach, and subacute-chronic inflammation of the cæcum and colon. Constipation.

October 9, 1839. Mrs. —, age 21, married two years, has no child, menstruates regularly, though scantily and with pain. She complains of sickness and pain in the stomach after food, of whatever kind and whenever taken, which continue till the whole has been thrown up. Sometimes she vomits immediately the food that has been swallowed, at other times not till the expiration of an hour. First the food is vomited, then a hot, sour, ropy fluid which burns the throat, excoriates the mouth, and sets her teeth on edge. She does not become easy till the whole of this fluid has come up. Her appetite is good, and she never feels satisfied; yet the moment she swallows anything the above symptoms are induced. She is weak and much emaciated; the tongue is reddish, clean, moist: the pulse small: the hands and feet cold.

She has always suffered from constipated bowels; strong medicines being required to produce an action; and has now been a week without a dejection, notwithstanding she has taken aperients every other night. The stomach symptoms have existed three years.

On exploring the abdomen I find a tumour in the left hypochondrium, hard and rounded, more perceptible in the erect than in the horizontal posture. It is situated deep, exactly in the region of the cardiac extremity of the stomach, being more forward and higher, and nearer the epigastric region, than the spleen. Connected with the gastric symptoms, I conclude it to arise from disease of the cardiac extremity of the stomach.

I find, also, tenderness and pain in the regions of the cæcum and sigmoid flexure, and along the whole tract of the colon, so dis-

tinct and well marked as to indicate a pathological condition of the whole of the large intestine: probably a subacute-chronic inflammation and thickening of the mucous and submucous tissues with contraction of the gut: states which are common consequences of the irritation of knotty, hard, scybalous feces unduly retained in the large intestine. The aspect of the case is that of extensive disease both in the stomach and colon, advanced to a point probably beyond the power of medicine.

To take Hydrarg. Chloridi. gr. $\frac{1}{2}$, Opii. gr. $\frac{1}{4}$ after breakfast and dinner; Extract. Colocynth. Comp. gr. v., Opii. gr. 1-6 every night; and the Mist. Magnes. cum Magnes. Sulphat. et Decoet. Aloës Comp. every morning. To apply an Emplast. Hydrarg. cum Ammoniaco to the region of the stomach.

October 16. The medicines operate well upon the bowels. The mixture has been taken in the evening, it having been rejected by the stomach when taken in the morning. She has experienced no relief. At the end of October when this report was concluded, no amendment had taken place. She suffered less in the horizontal than in the upright position.

Remarks.—This case illustrates the connection between organic disease of the stomach and habitual constipation, which latter preceded the stomach affection for years. The cardiac disease has occurred at an unusually early period of life. The pain and tenderness in the seat and course of the large intestine accord exactly with the symptoms and cases detailed by Mr. Annesley in his work on the Diseases of India: in which he has so amply shown that these symptoms indicate a morbid condition of the large intestine. The profession is much indebted to him for having pointed out and urged the necessity of exploring the abdomen, and the certainty with which disease of the large intestine may be traced, even where there is no tumour to fix the attention.

Source of the fluid discharged during the paroxysms of Pyrosis.—In reflecting upon the phenomena of the water-brash, it strikes one as remarkable that the fluid discharged should not be mixed with the food recently taken into the stomach.

It has been shown that the paroxysms of pyrosis come on *after* meals, that there is first pain, then nausea, and lastly the discharge, often very copious, of the tasteless, thin, clear, and rather ropy fluid, characteristic of the water-brash; after which the paroxysm is at an end, and the patient feels comfortable.

This history impresses one strongly with the notion that the fluid comes from the stomach, and that the ejection of it from the stomach affords the relief experienced at this moment. The patients, too, and many authors, participate in this opinion. Dr. Pemberton remarks, "it seems, at first sight, rather extraordinary that a tasteless and limpid fluid should be capable of producing so much pain, and such disturbance in the stomach," and then endeavours to account for this seeming anomaly by saying that "the nerves of the tongue and of the stomach are not equally influenced by the same stimuli: a solution of antimonium tartarizatum, which is tasteless, can produce

the greatest effects upon the nerves of the stomach ; and many substances highly acrimonious to the tongue and palate are not only agreeable, but even beneficial to the stomach.”*

If this fluid came from the stomach, the stomach being full of the preceding meal, it is impossible to believe that none of the food would be thrown up with it ; and as no food is mixed with the fluid, one must look elsewhere for its source. Whence else can it proceed ? From the salivary glands and muciparous follicles of the mouth and throat ! When an emetic is taken, and the person first feels sick, the mouth instantly fills with water, which runs from it in a clear stream, and then follows vomiting of the contents of the stomach. This clear stream is unquestionably furnished by the salivary glands and muciparous follicles of the mouth and throat, suddenly excited to inordinate secretion by sympathy with the troubled stomach ; phenomena which form an exact parallel to the nausea of pyrosis and the sudden discharge of the limpid fluid. In both cases the fluid is tasteless, clear, thin, and ratherropy : and in both it proceeds from the same source ; of which any one may satisfy himself by questioning patients closely, when he will be informed that the fluid runs from the mouth when nausea supervenes, but is not eructated or vomited, as Cullen, Mason Good, Abercrombie, Andral, and others describe. In severe cases of pyrosis, actual eructation and vomiting of the contents of the stomach succeeds the watery discharge from the mouth, but does not accompany it.

The quantity of the fluid is, on some occasions, very great indeed. In the case of Hannah Connel, (page 53), it amounted to three or four pints daily ; and both Pemberton† and Andral‡ mention instances in which the quantity was equally great. On account of this vast discharge, Drs. Rollo§ and Pemberton|| have endeavoured to trace an affinity and resemblance between diabetes mellitus and water-brash ; the reasons adduced in support of which it is not necessary now to go into ; seeing that they have been based on the assumed fact of the fluid in pyrosis coming from the stomach ; which has been shown not to be the case.

Pathology of the Pyrosis or Water-brash.—In all cases where the stomach labours after food ; where uneasiness, distress, or absolute pain is pretty regularly experienced, though the quantity of food be small, and the quality not unwholesome, there is a heightened condition of the organic sensibility dependent not on a state of irritation merely, but on actual inflammation ; sub-acute, however, in degree, chronic in duration ; and therefore subacuto-chronic. And if, in addition, nausea supervenes, and finally vomiting, there

* A Practical Treatise on Various Diseases of the Abdominal Viscera, by C. R. Pemberton, M.D. p. 105. Second Edition. London.

† Op. cit. p.104.

‡ Clinique Médicale, quatrième partie, Maladies de l’Abdomen, p. 398. 1827.

§ Cases of Diabetes Mellitus, &c. : by John Rollo, M.D. p. 393, 394. Second Edition.

|| Op. cit. p. 106.

is reason to suspect not merely the presence of an inflammatory congestion, but of an absolute organic change ; a suspicion strengthened at this time by the gradual diminution of the blood, and the decided loss of flesh, constituting a condition of universal anaemia and atrophy. In this opinion Abercrombie* concurs.

It follows, then, that, not only where there exists the assemblage of symptoms, constituting pyrosis, but where there is gastrodynia, frequently and pretty regularly recurring after meals, there one must consider an inflammatory congestion to be present, and direct the treatment accordingly. These states differ obviously from the sense of sinking felt when the stomach is empty, and from the sense of distention with acid and flatulent eructations, when the stomach is full : symptoms so common where there is anxiety of mind, or food taken to satiety. In the latter cases the feelings may be termed uncomfortable ; in the former, distressing.

These states differ also from the accidental and single paroxysms of pyrosis, which may occur to any one who has swallowed articles of food of an indigestible kind, imperfectly masticated ; the passage of which through the pylorus will excite irritation, pain, nausea, and water-brash. A lady, now under care, states this to be the case with herself whenever she happens to eat pickles.

The exact pathanatomical† condition of the stomach in gastrodynia and pyrosis admits of question. All will perhaps now agree —though I find in one of the most recent articles, published on pyrosis,‡ the pathology of it is not discussed—that a pathological congestion is present, but will not agree as to the tissue in which it is seated, or as to the structural changes which result. Abercrombie,§ and Andral,|| fix it in the mucous membrane, and regard the thickening and induration of the other tissues as ulterior processes. It is difficult to imagine that the mucous membrane is not affected or concerned originally; but from my observation of these affections during life, and from the examination of the stomach after death, I am of opinion rather that the disease is situated mainly in the submucous tissue.

Believing that all cases of organic disease of the stomach—whether cardiac or pyloric, malignant or otherwise—are preceded by gastrodynia or pyrosis, as forerunners or precursors of the organic change ; and finding, by dissection, that although these organic changes are seated in and occupy all the tissues except the serous, yet the mucous membrane is less affected and contributes less to the general thickening than do the submucous, muscular, and subserous tissues. Where there is no ulceration—as in cases

* Op. cit. p. 83.

† The word "Pathanatomy" is proposed as synonymous with "Morbid Anatomy," and relates only to morbid or diseased structure: a subject very different from "Pathology," which is the science or doctrine of disease,

‡ Cyclopædia of Practical Medicine.

§ Op. cit. p. 19.

|| Clinique Medicale, quatrième partie, p. 362.

of simple thickening and induration, not malignant—the mucous membrane will often be found pale, sometimes vascular, perhaps swollen; but the thickening and induration occupy the tissues between the mucous and serous tunics, and often pervade the whole stomach; the thickness of the indurated submucous tissue alone being frequently to the degree of one line, and sometimes even of seven lines; when the stomach is contracted to a small cavity, and altogether incapable of dilatation. I incline, therefore, to the opinion that the submucous, muscular, and subserous tissues—which constitute the substance of the parietes of the stomach—are the chief seat of diseased action, and not the mucous.

In this opinion, I am supported by the fact that a muco-gastritis will exist for a very long period without involving the other tissues; although the cause of the inflammation shall be intense and continued, as in spirit drinkers. I have, in many instances, examined the stomachs of these persons after death, and found the mucous membrane rather swollen, vascular, and softened; and, moreover, the muciparous follicles diseased, so as to be very apparent, being hypertrophied, white, round, flattish, and imbedded in the membrane, giving it very much the appearance of rough fish skin. The stomach is usually dilated, and its blood-vessels very large and numerous.

Now in these instances, where there has unquestionably been a subacute-chronic inflammation of the mucous membrane, the other tissues have not become involved: nor have these patients become affected with the discharge of a tasteless clear watery fluid after meals, as in pyrosis, but with the morning retching and eructation of a watery phlegm, salt, acrid, bitter; composed of an inordinate secretion from the gastric muciparous glands, and of bile which has found its way from the gall-bladder along the duodenum, and through the pylorus into the stomach. Not only has this dyspepsia ebriosorum been confounded with pyrosis, but the path anatomical characters of both have been confounded also.

Gastrodynia and pyrosis may be set forth as depending upon a subacute-chronic inflammation, which, sooner or later, causes thickening and induration, more or less, of the submucous and subserous tissues, and hypertrophy of the muscular; the mucous membrane being affected, but in a very much less degree. The whole stomach may be equally diseased; but the portion more usually concerned is the pyloric rather than the cardiac; the tissues being then more diseased in the direct ratio of their vicinity to the pylorus; and the pylorus itself often involved.

The seat of the diseased action, as here pointed out, is the reason why the pain supervenes some time after food has been taken; when, chymification having been in part effected, the contents of the stomach are passed on towards and through the pylorus. In this process the muscular tunic is particularly engaged, and being itself, as also its contiguous tissues, in the midst of inflammation and disease, its contractions are attended with pain, aggravated

and augmented by the heightened organic sensibility of the mucous membrane, and of the pylorus itself. The irritation produced by the contents of the stomach, as they are passed onwards to the pylorus excites nausea ; the nausea excites, by sympathy, the sudden and copious secretion from the salivary and muciparous glands about the mouth and throat, which, consisting of saliva and mucus, runs from the mouth clear and ropy, and constitutes the water-brash ; and, in the more severe cases, the nausea and watery discharge are followed by actual vomiting, the pyloric portion of the stomach, and the pylorus itself, not permitting the continued presence of the gastric contents or their passage onwards. The food having been thrown up, or passed through the pylorus, ease follows, and the patient remains comfortable until the next meal has re-supplied the cause of irritation.

In proportion to the quantity of food which the stomach is able to retain, digest, and pass onwards to the duodenum for the support of the body, so in proportion does the patient either preserve or lose his flesh.

This, then, I would venture to regard as the true pathology of *Gastrodynia* and *pyrosis*.

The explanation offered by Cullen, that "it seems to begin by a spasm of the muscular fibres of the stomach, which is afterwards, in a certain manner, communicated to the blood-vessels and exhalents, so as to increase the impetus of the fluids in these vessels, while a constriction takes place on their extremities. While, therefore, the increased impetus determines a greater quantity than usual of fluid into these vessels, the constriction upon the extremities allows only the pure watery parts to be poured out, analogous in every respect to what happens in *diabetes hystericus*;"* or the explanation by Mason Good, that there is paresis, or inactivity of the proper absorbents of the stomach ; or the surmise that the fluid may be furnished by the pancreas, need not be observed upon.

Causes of Gastrodynia and Pyrosis.—The causes of these affections are no doubt manifold. Indiscretion in diet, anxiety of mind, food not congenial to the stomach, or imperfect mastication, may excite all the phenomena described : as is seen in Lapland, where the nature of the food, principally dried fish, seems to cause half the population to be affected, which induced Linnæus to consider pyrosis as epidemic in that country. As far as my observation has extended, the kind of food is not a frequent cause in this country.

The cause, to which I would attribute the origin of these gastric diseases more frequently than to any other, is *habitual constipation* ; for the reason that—as seen in the cases detailed—it had long preceded the invasion of these complaints, and had been the first, and for a time the only, departure from the healthy functions of the body ; and for the reason, also, that the complaints, if recent, will

* First Lines of the Practice of Physic. By William Cullen, M.D. vol. iv.
p. 15.

subside when the cause, constipation, has been removed. I wish however, to be understood as not regarding constipation to be the only but the most frequent cause in this country.

The treatment which I have pursued and found successful,—not only in relieving but in curing gastralgia and pyrosis,—has been based on the pathological views just set forth; and conducted on the principle of restoring the natural function of the bowels,—of appeasing the irritability of the stomach,—of subduing the subacute inflammatory action,—and of removing, as far as possible, its consequences on the tissues of the stomach. The means adopted have been *calomel, opium, the local abstraction of blood, counter-irritation, and appropriate aperients.*

Inasmuch as the diseased actions are chronic and subacute, so the means have been mild and continued. The calomel has been given in the dose of *half a grain* and the opium of *a quarter of a grain*, twice a day; namely, after breakfast, and after dinner. At these periods the opium reconciles the stomach to the presence of food, and the calomel acts gradually as a mercurial. The dose of mercury is small in order that it might not salivate too soon; time being required to remove diseases of long standing. The effect of this combination is most happy: and success attends the treatment of almost every case which admits of recovery. The medicines are persevered in for many weeks; unless the gums become affected, when the calomel is omitted, but the opium continued. Opium was a favourite remedy of Cullen, has been adopted by others, and is an essential part of the treatment: though, when given alone, it is only palliative, as candidly stated by Cullen.

Where the patients have not yet suffered much emaciation, the *abstraction of blood* by cupping to a moderate amount, as *four or six ounces* from the region of the stomach, very much aids the cure: as also does the repeated application of *blisters*. In lieu of blisters, I have often used the *croton oil*,* a very efficacious counter-irritant, the pustules from which are smaller and less liable to run into ulcers than those produced by tartarised antimony. *The croton oil may be used for this purpose in the proportion of fʒj. to fʒxj. of either rectified spirit or soap liniment.*

The *nux vomica* employed by Linnæus, the *bismuth* by Odier and Marcket, the *tinct. benzœs comp.* by Baillie, and the *hydrocyanic acid* by others, are palliative only; but, as palliatives, they are efficacious. For several years past, I have seldom had recourse to any of these remedies, having found the calomel and opium so entirely successful. *Creosote*, in the dose of *one minim* to the ounce of weak gum-water, will often prove an excellent palliative. It was particularly acceptable to a patient sinking under a cancer of the pyloric extremity of the stomach: he kept it by him in bed, that he might frequently take a dose, which he said “nourished and com-

* It is remarkable, that out of a great variety of cases in which I have employed the *croton oil* externally, in one only was any effect produced upon the stomach and bowels.

forted him." The *diluted nitric acid* in small doses, as m. x. is sometimes agreeable and serviceable. It refreshes the stomach, and relieves the heat that occasionally supervenes.

Aperients, which form at all times a most important and essential part of the treatment, must be selected according as individuals require them to be mild or powerful, and according as any constitutional peculiarity or idiosyncrasy exists. I prefer *senna*; or *magnesia* with the *compound decoction of aloes*, sometimes with the *sulphate of magnesia*, or *sulphate of potass*; but occasionally the bowels will not respond to these milder aperients, when they require for a time the use of the drastic purgatives, as *camboge*, *aloes*, *coccygnath*, *jalap*, &c.: *castor oil*, where not disagreeable to the stomach, is efficacious and appropriate. Whatever may be the aperient or purgative required, the bowels must be kept open; or all other treatment will avail no further than to afford temporary relief.

Where the stomach is greatly distressed by food, and rejects it, or where enough cannot be taken or assimilated for the purpose of nutrition, a nutrient injection per alvum, twice a day, will aid in supporting the body, and prove a great relief to the stomach.

The *Diet* should consist strictly of food of the plainest description, and known to be of easy digestion. Broths seldom agree so well as solid food. Vegetables should be well done; and, if perfectly tender, may be eaten in moderation. Everything that is rich should be avoided. Cream, butter, and sugar should be used sparingly. Strong wines and spirits will frequently afford a momentary relief, but they are nevertheless injurious, and should be abstained from altogether. Perry, in the quantity of a wine-glassful twice a day, where the weakness is great, has proved agreeable and beneficial.

Perfect rest after meals and the horizontal position favour very much the process of digestion in *gastrodynia* and *pyrosis*; the food often remaining on the stomach without pain, and digestion proceeding; whereas, if patients sit up or move about, pain is more apt to supervene, and the stomach to eject its contents. Two patients, labouring under *pyrosis*, informed me that the pain and uneasiness in the stomach ceased on their going to bed.

Although I have entered more at length into the pathology of diseases of the stomach than the nature of this work called for, I have by no means done justice to so extensive a subject. The object of the present work is to show that many disorders are the consequences of habitual constipation, not to treat fully of the disorders themselves. I have, therefore, in the present chapter, exceeded this object in some degree; which I was tempted to do in order to give my humble aid towards establishing a true pathology of some gastric diseases, regarded hitherto rather as of a functional than of an organic character.

CHAPTER VI.

OF THE CONSEQUENCES OF HABITUAL CONSTIPATION ON THE SEXUAL ORGANS IN THE FEMALE, THROUGH THE SYMPATHY OF CONTIGUITY.

Hyperæsthesia and Hypertrophy of the Womb. Dysmenorrhœa. Menorrhagia. Amenorrhœa. Leucorrhœa. Abortion. Miscarriage. Supposed pregnancy.

THE intimate connection between all the viscera of the pelvis, both in the male and female, subjects them to the influence of contiguous sympathy. Through this medium, irritation of any one organ is propagated to the rest; all become involved, and a multiplicity of symptoms arises, so complex and mixed, as to require great discrimination and experience to determine the organ on which they primarily depend.

The symptoms emanating from an organ sympathetically affected will, not unfrequently, be so marked and prominent as to arrest the attention of the practitioner, and divert it from the real disorder: so truly has it been said by Sir Charles Clarke, that "in proportion as the practitioner is engaged in treating the complaints of one or the other of these parts, he will be led to attribute the symptoms to that organ to which his attention has been chiefly directed."* How constantly do we see tenesmus with mucous discharge from the rectum, in the male, sympathetic of disease of the bladder: and, vice versâ, ardor urinæ, difficult micturition, and even retention of urine, sympathetic of disease of the rectum. In the female, disease of the uterus will affect both the bladder and rectum; and irritation of the rectum will be propagated to the uterus and the bladder.

It is my object to show that habitual constipation ought to be recognised as one very frequent, perhaps the most frequent, cause of affections of the sexual organs in females: and even where it is not absolutely the cause, that it is always a source of aggravation. Constipation of the bowels has been referred to by writers on the diseases of females, particularly by Sir Charles Clarke, as a co-existing symptom requiring attention in the treatment; but it has been altogether overlooked as a cause.

O'Beirne, in discussing the physiology of the large intestine, has satisfactorily shown that the colon is the proper reservoir for the residual excrementitious matter; and that the rectum, so far from forming a part of this reservoir, is firmly contracted and closed; its normal functions being limited to the act of excretion. Accordinging with this view, the colon alone would be subjected to the irritation arising from the retained excrementitious matter in habitual constipation; and irritation of the colon would, by contiguous sym-

* Observations on those Diseases of Females which are attended by Discharges, part ii. 1814, p. 201.

pathy, affect the abdominal, not the pelvic, viscera. The sexual organs situated in the pelvis would, in fact, not then be exposed to irritation: and the position with which I have set out could not be maintained, much less substantiated.

That the colon and, sympathetically, the abdominal viscera suffer irritation from constipation, I have, in a former part of this work, pointedly remarked. The contiguity of a loaded colon to the liver will originate hepatic symptoms, and to the kidneys will excite a copious secretion of pale urine. It remains for me to show that feculent matter, in cases of habitual constipation, does actually get into and remain in the rectum, and prove a source of great irritation to the neighbouring pelvic viscera.

I have no difficulty in assenting to the conclusion arrived at by O'Beirne, that the rectum is not a reservoir for feculent matter, provided this opinion was limited to the normal and healthy function and action of the large intestine. But where, as in habitual constipation, a preternatural accumulation takes place in the colon, especially in the sigmoid flexure, portions will find their way into the rectum;—as instanced by the obscure continued indistinct desire to relieve the bowels, and by the evacuation merely of a hard scybal from time to time, rather by the striving efforts of the abdominal muscles, than by the action of the bowel itself, which indeed on these occasions seems passive;—as instanced also by the examples, far from uncommon, of feces impacted in the rectum.

Hard scybals lodging in the rectum excite a high degree of irritation on account of the particular nervous endowments of this portion of the gut: for, in addition to the organic sensibility with which it is endowed—in common with the whole intestinal canal—by nerves from the ganglionic system, it is endowed, moreover, with animal sensibility by nerves from the cerebro-spinal system.

The organic sensibility of the intestinal canal enables it to perceive the presence of the alimentary matter, and, stimulated by it, that peristaltic action results by which this matter is carried forward: but of this sensibility and of this action we are not conscious. We do not feel, nor are we conscious of the passage of the alimentary matter along the intestinal canal; neither do we know in what part of the canal this matter is, at any given time, until it reaches the rectum, when we are admonished of its arrival by what is termed “a call of nature.” This admonition is derived from the cerebro-spinal nervous system, and depends, in the present instance, on the rectum being supplied with nerves from this system, the peculiar property of which is animal sensibility, or that sensibility which we can perceive and of which we are distinctly conscious.

On this account the rectum, unaccustomed and not adapted to the protracted presence of feculent matter, is highly irritated by it; and determination of blood to the gut is the consequence. This irritation is propagated by the sympathy of contiguity to the other viscera of the pelvis, and an abnormal quantity of blood is deter-

mined to them also. The effect of this determination or hyperemia is to heighten the sensibility of parts, and so to cause their functions to be performed with uneasiness and pain. Hence *hyperæsthesia*, or tenderness of the womb: hence *the sense of heat about the rectum, pudenda, and bladder*: hence *dysuria* and *dysmenorrhœa*; and, I may add, *painful sexual intercourse and difficult parturition*.

The further effect of hyperemia is an excess of nutrition, and often an inordinate increase of the natural functions; hence *hypertrophy of the womb, menorrhagia, and leucorrhœa*. This state of hyperæsthesia and hypertrophy of the womb has been accurately described by Dr. Gooch as the characteristic of the irritable uterus. "If the uterus is examined, it is found to be exquisitely tender; the finger can be introduced into the vagina, and pressed against its sides without causing uneasiness; but as soon as it reaches, and is pressed against the uterus, it gives exquisite pain. This tenderness, however, varies at different times, according to the degree of pain which has been latterly experienced. The neck and body of the uterus feel slightly swollen, but this condition also exists in different degrees, sometimes sufficiently manifest, sometimes scarcely or not at all perceptible. Excepting, however, this tenderness, and occasionally this swelling, or rather tension, the uterus feels perfectly natural in structure. There is no evidence of schirrus in the neck, the orifice is not mis-shapen, its edges are not indurated."*

As another result of this general pelvic hyperemia, is an enlarged and congested state of the hemorrhoidal veins leading to frequent hemorrhage, and to the development of one kind of piles.

This state of irritation and general hyperemia of the viscera of the pelvis, predisposes them to structural disease; and the irritation and hyperemia having been not only excited, but kept up and prolonged through many years by habitual constipation, disease, malignant or otherwise, is eventually developed. It may be stricture of the rectum, or any of the formidable diseases of the womb.

As a consequence, too, of this same state of irritation and hyperemia, I would adduce the *prurigo pudendi muliebris et podicis*, of which almost all the distressing cases that have come within my own observation, have been preceded by long-existing habitual constipation.

The disorders of the sexual organs enumerated in the preceding pages, have been shown to result sympathetically from the rectum, the portion of the large intestine upon which the injurious influence of habitual constipation is specially exerted.

Now it happens, in other instances, that the rectum will escape and the colon suffer: then, instead of the pelvic, the abdominal viscera will sympathise, the liver and stomach particularly, on account of their contiguity to the large intestine.

*An Account of some of the most important Diseases peculiar to Women: by Robert Gooch, M.D. London, 1829, p. 312.

Irritation of the colon, excited and prolonged by habitual constipation, will assuredly produce determination of blood to the abdominal viscera, and consequent congestion of the portal system, the fruitful source of hepatic and gastric disorders. It is with this state of things that *Amenorrhœa* is apt to be associated, the function of the womb appearing to be diminished or suspended by the too great determination of blood to the other organs. In the most obstinate cases of amenorrhœa, how frequently do we find some co-existing organic disease, especially of the liver. Amenorrhœa, thus brought about, may be regarded as a remote, though not less decided, consequence of habitual constipation.

The influence of habitual constipation upon the uterus is not confined to its unimpregnated state. Cases have from time to time come under my notice in which it has appeared to be cause, immediate or auxiliary, of *abortion* and *miscarriage*. Certainly, it is a frequent cause of aggravating the nausea and sickness attendant upon pregnancy, of which every one must have had abundant proof.

Other cases have presented themselves to me in which ladies, near fifty years of age, have supposed themselves *pregnant*, the size of the abdomen from flatus, the absence of menstruation, and, as Dr. Gooch remarks, "an anxiety to believe in pregnancy as a test of youthfulness,"* having impressed them with this notion. One lady was extremely anxious to engage a nurse and to provide childbed linen, till, by vaginal examination, I was able to give her the unwelcome intelligence that she was not pregnant.

CASE XXXIII.—Menorrhagia cured by obviating constipation.

(Communicated by the late Mr. Jukes.)

"Mrs. S—, aged 28, a delicate person, the mother of two children, had been troubled with irregular and profuse menstruation for more than two years. She had been under medical treatment for the whole of that period, and had taken and used a great variety of medicines and applications without benefit: on the contrary, she was losing flesh, growing weaker, and suffering from palpitation and other nervous symptoms.

"I found all the indications of loaded bowels; and, on inquiry, was informed she had been exceedingly costive for many years. She was put upon a plan of stomachic aperients, with directions to let the bowels be moved freely and satisfactorily daily. At the end of a fortnight she was so greatly relieved as to think herself well. She pursued the plan with great steadiness for three months, at the end of which time she had regained her flesh and strength and was quite well.

"I have seen this lady to-day, November 5th, 1830, in perfect health; and learn that she has been once threatened by a return of

* An Account of some of the most important Diseases peculiar to Women: by Robert Gooch, M.D. London, 1829, p. 225.

disease within the last two years, but that it was owing to her own negligence and disregard of the state of her bowels."

CASE XXXIV.—Menstrua interrupted by constipation, and restored by attention to the bowels.

Miss J. W — had suffered from obstinate constipation for the last several months, during which the menstrua had been suspended. Her bowels, which were habitually regular, had become constipated on her leaving home ; and, soon afterwards, she ceased to be regular. On two or three other occasions, when she left home, her bowels became confined, and menstruation was suspended. Beside the interruption to the menstrual periods, she was troubled with other consequences of constipation, as flatulence, flushings in the face, and nervous symptoms.

I directed her to take the *compound decoction of aloes* with the *carbonate and sulphate of magnesia* twice a-day ; which acted upon the bowels moderately and not unpleasantly. In the course of a fortnight menstruation returned, and her health was soon establishd by perseverance in the same means.

CASE XXXV.—Chlorotic amenorrhœa. Constipation.

Mary M. C —, age 20, well grown, of rather spare habit and pale sallow complexion, came under my care in July, 1831. She had been subject to confined bowels as long as she could remember, two or three days passing without an evacuation ; and on one occasion three weeks ; the dejections being always hard and knotty. At the present time she experiences a constant bearing down pain with ineffectual efforts ; she has ardor urinæ, pain in the back, and leucorrhœa ; and is subject to cold feet in the winter. She began to menstruate at 18 years of age, and continued regular for four months ; after which the menstrua did not recur at the usual period. Then her respiration became short on moving about ; she felt languid, perspired easily, and had headach. The menstrua, having been suspended for six months, returned scantily every three weeks, of a pale colour, and attended with much pain.

The bowels were, in the first place, cleared by *coccygynth* and *calomel* ; after which she took the *Pil. Aloes cum Myrrhd* as an *aperient*, and the *Pil. Ferri C.* twice a-day. In the course of three weeks the menstrua recurred of a natural character and in sufficient quantity ; the bowels acted regularly, and her complaints were all relieved, except the leucorrhœa, for which she was instructed to use the *Liquor Aluminis Comp.* diluted, as a wash.

CASE XXXVI.—Utero-spinal irritation. Hypertrophy of the breast. Constipation.

Caroline Heywood, age 19, applied to me for advice on the 10th of November, 1834.

Her complaints were pain across the loins and extending round the hips ; pain deep-seated in the region of the uterus ; heat in the

vagina with tenderness extending towards the womb; ardor urinæ and leucorrhœa. She had pain in the left hypochondrium, great tenderness of the spine, so that she could not lean against a chair or bear her stays laced, and crampy pains in the lower extremities. She menstruated every twenty days abundantly. Her left breast was enlarged, rather hard, and very tender; she was very nervous and agitated: her pulse was frequent; and she suffered from palpitation of the heart. Her appetite was impaired, and her bowels habitually confined.

For several weeks she was treated with *blue pill* and *rhubarb*, the ammoniated tincture of valerian and bitters; then, with preparations of iron; and, lastly, with ammonia, *hyoscyamus*, and confection of senna.

From the first part of the treatment she received but little benefit. The iron disagreed; and it was not till she had recourse to the confection of senna, ammonia, and *hyoscyamus* that amendment was decided. The senna regulated the bowels exactly; and when this natural function was secured, then it was that she began to experience relief. The heat and pain about the womb diminished, the menstrua became less profuse, the tenderness of the spine ceased, and the enlargement of the breast subsided. The appetite returned; and on the 29th of December, she took leave of me, with injunction to persevere in regulating the action of the bowels.

CASE XXXVII.—Utero-spinal irritation. Constipation.

Sarah Goodson, aged 29, unmarried, fair, sanguine temperament, menstruated regularly, but had been ill five months with the following symptoms:—pain under the left breast with palpitation;—pain also in the left hypochondrium shooting through to the back;—tenderness over the left and inferior regions of the abdomen extending round to the vertebral column, the vertebral column itself from the middle dorsal vertebra to the sacrum excessively tender, the slightest touch upon the spinous processes causing her to shrink and cry out. The corresponding parts of the right side were not affected. She had ardor urinæ and sense of heat in the course of the vagina to the uterus. The tongue was rather red, and the pulse frequent and contracted.

She stated that she had suffered more or less from similar complaints since the age of 20; that her bowels were habitually and most obstinately confined, a week passing without any dejection; the dejections always very hard, like marbles, and passed with pain. She had haemorrhoids, but no leucorrhœa. Her urine was at one time scanty and high-coloured, at another, copious and pale.

The uterus, on examination, proved to be very tender, and, when touched, the pain in the left hypochondrium was sensibly increased. The hymen was present, which rendered the examination difficult.

A warm bath was prescribed, also an enema every morning, and

a *senna* draught every evening at bed-time. *Leeches* were also directed to be applied to the *uterus* by means of the *vagina leech tube*.

These means were ineffectual in procuring proper evacuations. The leeches could not be applied to the uterus, the nurse finding it impracticable to introduce the tube. On these accounts *coccygynth*, *calomel*, and *opium* were added as aperients; *leeches* were applied to the groins and *sacrum*; blood was also drawn from the region of the *sacrum* by cupping; and, as soon as the tender spine would admit of friction, the *croton oil* embrocation was applied to it. The bowels having become manageable, the *confection of senna* was substituted for the other purgatives, and at the end of two months she left the hospital very much relieved.

CASE XXXVIII.—Leucorrhœa. Dysuria. Prolapsus uteri. Constipation.

Mary Ann B—, age 45, the mother of eight children, came under my care in October, 1830, affected with a profuse white discharge from the *vagina*, attended with heat and itching about the *pudenda* and neighbouring parts; with a bearing down of the *womb*, ardor *urinæ*, and very frequent desire to micturate, passing little at a time; and with pain of a dragging character, in the back and in the left *hypochondrium*, less urgent when in bed.

For very many years she had laboured under a constipated state of the bowels, the dejections being always hard and knotty, and evacuated with difficulty and striving; which, forcing down the *womb*, aggravated the prolapsus. The bowels were readily acted upon by medicine, though seldom without. Besides the above symptoms, she had the usual headache, flushings of the face, cold feet, &c., which seldom fail to be the attendants of habitual constipation, but her appetite and digestion—as is not unfrequently the case—remained good. Take *Pulv. Rhei gr. v.*; *Sodæ Sesquicarb. gr. x.*; *Pulv. Ipecacuanhæ Comp. gr. iii.* twice a-day: and use the *Liq. Aluminis Comp. diluted*, as a wash.

From this powder, which, taken twice a-day, acted mildly and effectually, she quickly derived much benefit. The leucorrhœa diminished, as also did the heat and itching about the *pudenda*. Micturition became less frequent; her general health improved; and the prolapsus had become as little troublesome as was possible with her obligation to work.

CASE XXXIX.—Sickness during pregnancy aggravated seriously by constipation.

I was requested to visit Mrs. M—, in consultation with Mr. Terry, in July, 1831.

She was six weeks gone with child. She was in bed, lying on the back with the head and shoulders raised, exhausted by constant sickness and vomiting. She was unable to retain anything on the stomach except toast and water, which had been the case for nearly a fortnight. Prior to this she had suffered also from nausea. She

complained much of pain and tenderness in the region of the stomach and liver, and more or less over the whole abdomen, with intermitting twisting pains. The abdomen was rather hard; the respiration was frequent; the tongue white; the pulse frequent, soft, and weak; the skin cool. She reported that her bowels had been regular, having had one or two dejections daily, and that she was purged by medicine three days ago. She had been bled about a fortnight previously; and leeches had been applied to the region of the liver in the morning of the day I visited her.

I suspected the patient was deceived as to the state of her bowels, and that the vomiting was excited and kept up by a loaded colon. She was therefore directed to have an enema immediately and to take

Ol. Ricini ʒiii.; Tinct. Opii ℥v.; Aquæ Cinnám. ʒv. every four hours till the bowels should act; and then Magnesiæ gr. viii.; Conf. Opii gr. v.; Aquæ Menthae virid. ʒi. every four hours.

On visiting her next day, I had the gratification to see her lying comfortably on her side free from sickness, vomiting and pain. The pulse had recovered its strength, and the tongue was less white. The enema and oil had operated four times; the two first dejections were black and lumpy, the others of a more natural character. The relief was complete, and so much had the stomach recovered, that she longed violently for roast pig.

Although the disorders of the female sexual organs, which I have described, have been produced wholly, or in great measure, by habitual constipation, it does not follow that the treatment should be directed solely to the removal of the constipation; or that, by its removal, the disorders will be invariably cured. Many will nevertheless yield to this treatment only. Dr. Gooch, in discussing the remedies for the "irritable uterus," observes, "another remedy is a mild course of mercury; from three to five grains of blue pill, or compound calomel pill mixed with five grains of extract of henbane, taken every night for several weeks, or every other night for many weeks, have sometimes, without affecting the gums, occasioned a very regular action of the bowels; and during its influence, the periodical aggravations of pain have not recurred, and the permanent pain has diminished, and at length ceased altogether."*

Where causes have been long in operation the effects will continue even after the original cause shall have been removed. In addition, then, to the relief of the constipation by appropriate aperients as an indispensable part of the treatment, other remedies adapted to the particular disorder must be conjoined. In cases of *menorrhagia*, for example, it is essential to exhibit remedies known to have a powerful effect upon abnormal menstrual or sanguineous discharges from the womb. Of these the *ergot* claims the preference unquestionably. I have heard persons express doubts of its efficacy: but so many cases under my own care have been benefited or cured by it, that I cannot but regard it as a most valuable

* Op. cit. p. 323, 324.

addition to the *materia medica*. Not only has menorrhagia been controlled, but the haemorrhage after abortion has been at once checked. Cases, in which an exhausting draining haemorrhage has persisted for five or six weeks after abortion, have yielded at once to the influence of ergot.

It is of consequence that the ergot be in good preservation, and free from decay, or its virtues may be negatived. It may be administered in substance, in infusion, in decoction, or in tincture: either of which preparations is efficacious. When given in substance,—the dose ten or twelve grains,—it is usually mixed with a few grains of sulphate of potass, to facilitate its reduction to a fine powder; it being essential that all medicines administered in the form of powder should be in as fine a state of subdivision as possible.

Besides the ergot, *mineral acids* and *tonics* are often advantageous. The *arsenious acid* has lately been recommended by Mr. Hunt,* both in the form of the liquor potassæ arsenitis and in substance. Should any, for the sake of convenience, prefer to give it in substance, I urge them to take especial care that it is reduced to an impalpable powder before it is made up into pills; and, even with this precaution, I question whether it is admissible, on account of its virulent poisonous properties. An alkali should be conjoined.

In the treatment of painful menstruation, *dysmenorrhœa*—the sufferings from which are indescribable, varying from pain in the lower part of the abdomen and back almost to torture, accompanied with sickness, vomiting, and death-like syncope—I have found the *belladonna* most valuable. I have usually prescribed it in the dose of *a quarter of a grain of the extract*, made into a small pill, which may be taken twice a day where patients suffer, but not very severely, for two or three days about the menstrual period. In the more urgent cases, I advise it to be repeated in one hour; then again after an interval of two; then of three hours; till two, three, or four doses have been taken, according to circumstances: and I have seldom been disappointed in the result. It may produce giddiness and dimness of sight, but they soon pass away. Its unpleasant effects are less than of opium; and its efficacy decided.

The conditions of *hypertrophy* and of *hyperæsthesia of the uterus* are benefited essentially by *leeches* applied direct to the os uteri by a *vagina tube*; or, more certainly, though with less delicacy, by means of the *speculum*, which gives the further advantage of disclosing the actual state of the uterus. It is only just now that the use of the *speculum* is being introduced in this country; and although the first impression of its indelicacy is great, yet, when one experiences its utility as a means of securing more accurate information of the condition of the organ than can be arrived at by the ordinary method of examination, one inclines to its adoption in urgent cases;

* Trans. of the Royal Med. and Chir. Soc., vol. xxi. p. 277.

and, proper delicacy being observed, females do not in general withhold their consent.

That the healthy functions of the womb are interfered with by an habitually constipated state of the bowels, the preceding remarks and cases, will, I hope, make manifest. I have known several instances in which ladies—who either had not yet borne children, or in whom utero-gestation had been suspended—have become pregnant quickly after their general health, and the uterine functions had been improved by securing the regular action of the bowels; a circumstance which has happened in two persons within the last eighteen months.

Leucorrhœa.—Among the many consequences of habitual constipation, leucorrhœa is not the least frequent or unpleasant. It is the result of irritation, from the sympathy of contiguity between the uterus, vagina, and rectum, and is generally attended by ardor urinæ; by a sense of heat greater or less, often excessive, and tenderness of the parts about the orifice of the vagina. Singularly enough, a *pain in the left side, about the hypochondrium*, is an ordinary concomitant of leucorrhœa. I say singularly enough, because neither anatomy nor physiology, sound or morbid, explain why, in affections of the uterine system, pain should be referred to this precise situation. But that this pain is connected with the female sexual organs appears evident from the circumstance of its being a symptom attendant both upon utero-gestation and prolapsus uteri, and is moreover proved by the fact, ascertained by Dr. Gooch and verified by myself, that the pain in the side is increased when the irritable uterus is touched during examination. So constant is this association, that when a patient suffers from pain in the left side, about the margin of the false ribs, it is almost certain that she is affected either with leucorrhœa or irritable uterus, or prolapsus, or is pregnant.

It is from the muciparous glands about the os externum, as I have reason to believe, that the true leucorrhœa, the transparent mucous discharge proceeds; while the white mucous and purulent discharges may often be seen, by the aid of the speculum, to proceed from the glands about the cervix uteri, and from the mucous lining of the uterus itself; the pathological condition of which uterus appears to be a subacute-chronic inflammation, or muco-metritis, rather than a mere hyperemia, or congestion of blood. Pus is the proper product of an inflammation of a mucous membrane, and does not proceed from this tissue as a result merely of irritation.

So violent, sometimes, are the symptoms, burning heat and frequent micturition, attending leucorrhœa, and so decidedly muco-purulent is the discharge, that the distinction between it and *gonorrhœa* is not at once evident. A circumstance upon which I place much confidence, is the presence or absence of irritation and tumefaction of the inguinal glands. If these sympathise, I suspect gonorrhœa, for with gonorrhœa they are almost invariably involved more or less; whereas in the most severe cases of leucorrhœa,—when undoubtedly there has been inflammation of the vagina, probably also of the os uteri itself—the inguinal glands have not become

affected. I can only speak from my own experience, the result of which has impressed me strongly with the validity of this distinction.

In the treatment of ordinary cases of leucorrhœa, it is my custom to prescribe the *liquor aluminis compositus* diluted as a *wash* not as an *injection*; for I find that, by applying it to the pudenda only, the labia being separated, it restrains and cures leucorrhœa. The use of a remedy as a lotion instead of as an injection, is a very great desideratum in all females, more particularly in those who are unmarried. The readiness and almost certainty with which leucorrhœa yields to this outward application, has, in part, led me to infer the source of leucorrhœa to be from the glands about the os externum, which secrete mucus so abundantly in the last stage of labour.

In the muco-purulent form of vaginal discharge, attended with heat, irritation, and inflammatory congestion, the local abstraction of blood should precede the use of astringent lotions, and, above all, the bowels should be regulated by proper aperients. If astringent and irritating remedies are employed in the first place, the symptoms will be aggravated and very decided inflammation of the vagina and uterus excited. Within the last few weeks, a young married woman was brought to the hospital with severe *inflammation of the uterus caused by an injection*. By means of the speculum, the os uteri was seen to be turgid, and of a vermillion red colour; it was very tender, and surrounded by tenacious muco-purulent matter. She was relieved by hot baths and depletory and antiphlogistic measures,

The cases of purulent vaginal discharge with inflammatory congestion, are tedious to cure. Much perseverance is necessary on the part of the patient, to keep the bowels in a natural state; to submit to the local abstraction of blood from time to time; to use hip baths, so as to tranquilize irritation and remove inflammatory congestion before astringents are employed. Of these, I know of none better than the *liquor aluminis compositus* diluted, as already mentioned. Other practitioners prefer *nitrate of silver, acetate of lead, bichloride of mercury, &c.*

The consequences of habitual constipation upon the *sexual organs in the male*, are less frequent and less severe than in the female; owing, first, to the less frequent existence of constipation; and, secondly, to the less intimate relation between the sexual organs and the rectum.

The portions of the male sexual organs most subject to the influence of habitual constipation from the sympathy of contiguity, are the vesiculæ seminales and the urethral extremities of the vasa deferentia, the influence upon which parts is to produce a state of increased determination of blood, of increased organic sensibility, and of irritation, the exhausting effects of which are inopportune excretions, and excessive sexual indulgence.

CHAPTER VII.

OF DISEASES OF THE CÆCUM AND COLON AS CONSEQUENCES OF HABITUAL CONSTIPATION.

Colic. Diarrhoea. Dysentery. Ileus. Accumulation of Feces. Obstruction. Displacement. Inflammation, acute, subacute, and chronic. Ulceration. Hypertrophy or thickening with induration and contraction. Stricture.

COLIC is a very frequent consequence of constipation, and varies in severity from an obscure aching pain to one of great intensity; remitting, intermitting, exacerbating; located generally about the navel, or in the region of the ascending or descending colon.

In *one* instance it will supervene suddenly and with severity, the pain being of a violent twisting character, drawing the patient almost double, and causing him to moan and call out. With the continuance of the pain he grows excessively restless and changes his position, at one time lying on the belly, at another getting up on the knees, then walking about the chamber; all which symptoms continue till the colon has been evacuated; when they subside at once.

In *another* instance, the pain will be aching and wearing, though not severe, and may affect the patient more or less daily for weeks, accompanied with frequent inclination to retire to the closet; which impresses him with the conviction that his bowels are much relaxed, though, in fact, little else than a scybal and mucus pass, the colon being and continuing to be loaded. In these cases exacerbations of great severity will sometimes occur and induce serious indisposition, which is the more obstinate, inasmuch as the patient, believing his bowels to be relaxed, is himself deceived and deceives sometimes the medical attendant, so as to prevent the appropriate remedies being had recourse to. Doubt on this point can only be cleared up by observing the dejections, the scanty, scybalous, and mucous character of which declares the loaded state of the colon.

In a *third* instance, the colic pain shall consist only of one sudden violent twinge, which may attack a person in his usual health, and, by its intensity, cause him to fall down in a state of syncope, he breaking out, at the same instant, into a profuse sweat, greatly to the alarm of himself and friends.

Where the case is a true colic and depends on a spasmodic contraction of some part of the muscular tunic of the colon, the pain is referred to some region in the course of the colon. Where the pain is referred to the navel, I have reason to believe it depends on spasm of the small intestines, and is often the forerunner of ileus.

CASE XL.—Severe stercoaceous colic relieved immediately by an enema.

A lady about 55 years of age and of very full habit, who had long suffered from constipation, was seized with violent gripping twisting pains around the abdomen and great flatulent distention, causing

her to cry aloud and to be changing her position in bed perpetually. The pains remitted and exacerbated, but were not accompanied with any movement in the pulse, nor by any heat of skin, nor preceded by any unusual indisposition. Her constipated habit was known to me; and it was evident the colic proceeded from a loaded state of the large intestine. Without waiting, therefore, for the operation of medicine by the mouth, I directed a very copious domestic enema to be thrown up; the immediate effect of which was to evacuate the colon of nearly a utensil full of hard scybals, to the entire relief of the patient.

CASE XLI.—Colic mistaken for inflammation; fatal.

A gentleman, about 35 years of age, of spare habit and nervous temperament was harassed by an irregular state of the bowels, they being generally much confined. At times he would be affected with colic pains and frequent inclination to retire to the closet, the dejections being scybalous, scanty, and mucous; which nevertheless impressed him with the belief that his bowels were absolutely relaxed; the contrary in fact being the case. His health being weak and disordered, he set out on an excursion to Leamington, and, while on the road, the colic pains increased so considerably that it was with difficulty he reached the end of his journey.

Arrived at the hotel, the pains were become most violent, and the gentleman excessively ill. Advice was obtained, and blood to a large amount abstracted under the notion of inflammation; medicines also were administered without relief. The pain persisted in all its intensity, and extinguished life in the course of sixteen hours. The body was opened and the colon discovered to be loaded with hardened feces; without any evidence or trace of inflammation.

CASE XLII.—Colic pains and diarrhoea from feces accumulated in the colon.

1830, February 24. Charlotte P—, age 21, requested my advice on account of a griping twisting pain in the bowels with tenesmus and frequent scanty slimy dejections, attended with much striving; for which she had been under treatment, the bowels supposed to be relaxed. The abdomen was flatulent and distended; she had eructations, and a foul white tongue; and was subject to flushings and heats in the face with heaviness and headach.

Suspecting the bowels to be loaded, she was directed to take *castor oil and laudanum*, which seemed to purge her many times, yet without relief; afterwards she took *magnesia, rhubarb, and Dover's powder*, and next day there passed an immense dejection of more than half a utensil full of feculent matter.

CASE XLIII.—Colic pain producing syncope; mistaken for epilepsy.

Calling one day on a friend, a solicitor, in the middle age of life, I found him in bed much out of spirits, and with a cut on his nose. He told me that, the day previous, he had fallen down in a fit of

epilepsy, and struck his head against the edge of a door, by which he received the cut on the nose.

Knowing this gentleman not to be the subject of epilepsy, I questioned him as to the nature of the attack, and was informed that, on retiring to the closet, he was seized with a most acute gripping pain in the bowels, which caused him to break out instantly into a profuse sweat, and to fall as if he had been struck down. His bowels were soon afterwards relieved, and he was now suffering more from the apprehension of being liable to the return of what he supposed to be epilepsy, than from any bodily ailment, of which indeed he had none. He said his bowels were apt to be irregular and confined.

From his account, and from the absence of any signs of epilepsy, I was satisfied the attack was simply a fainting fit from sudden intense colic pain; and having assured him that he might make his mind easy on the subject of epilepsy, and that, if he would attend to his bowels, he would be free from any recurrence, his spirits revived, and he felt himself no longer an invalid. From this period the gentleman remained perfectly free from any return.

Another instance, exactly similar, occurred to me in the course of eighteen months afterwards.

I was summoned in great haste one evening, the 23d of November, 1830, to a gentleman said to be just seized with a fit. I hastened to his house and found the family in great alarm, and the gentleman, who had now recovered, pale and alarmed also, under the belief that the fit was apoplectic or something equally serious. On inquiry, it appeared that, while walking from the dinner table into the drawing room, he was suddenly seized with a violent twinge in the bowels, which made him perspire and fall senseless upon the sofa.

It was evident that he had merely fainted from an intense colic pain, which I assured him was the case, and that he need not be under any apprehension for the future, the affair being only transitory and accidental. I prescribed a rhubarb draught, and next morning found the gentleman at breakfast in his usual health.

It is unnecessary to multiply cases of colic, of which I have more at hand, arising from constipation. The cases adduced show how patients may deceive themselves into the conviction that the bowels are loose, when, in reality, the dejections are insufficient, though too frequent. *Pain*, moreover, however severe, does not of itself indicate inflammation or blood-letting, nor will the pain of colic be effectually relieved by it; while the loss of blood in a person of a nervous temperament, with a continuance of the acute suffering, may soon destroy life; whereas, attention directed to the removal of the cause would be at once successful.

No greater error in medicine can be committed than the relying upon a single sign as indicative of a disease, which, when present, is evidenced by several. Inflammation is manifested not by pain alone, but by other signs co-existing; and therefore, when these

other signs are not present, it may safely be concluded that the pain does not result from inflammation, but from spasm, or neuralgia, &c.

Remarks of a similar tendency apply to the cases of syncope, and to the possibility of mistaking them for epilepsy. Syncope is a sudden seizure from an accidental cause. Epilepsy has always premonitory and precursive signs; and, besides, the fit itself is so different from syncope, that it is only to recollect that epilepsy is attended with convulsions, foaming at the mouth, and congestion of the face and head, in order to distinguish it most readily from syncope, where there is a death-like stillness and pallor.

CASE XLIV.—Dysentery consequent on habitual constipation, cured by saline aperients.

Elizabeth Oliver, aged 40, married, but has not had children, came under my care in January, 1829. She had suffered from most obstinately confined bowels for fourteen or fifteen years, accompanied with pain in the region of the traverse colon, which had impaired her digestion and general health. For some time past, instead of constipation, she has had frequent dejections consisting more of mucus than of feces; and latterly, they have been preceded by violent gripping pains. It was evident from the small quantity of feculent matter voided, that the bowels—although apparently relaxed, dejections occurring several times in the day—were in reality confined, and an aperient treatment was accordingly pursued.

Castor oil was first recommended; but, being retained on the stomach with difficulty, the sulphate of magnesia was substituted. Of this salt she took half an ounce every morning in a glass of warm water, which operated freely without much pain, and produced liquid feculent stools. By a continuance of this plan, the mucous discharge from the rectum ceased, the dejections became natural, were passed without pain, and the patient recovered her health.

CASE XLV.—Diarrhoea consequent on constipation, cured by saline aperients.

Mrs. M., age 28, came under my care in October, 1829. She complained of having been harassed for the last three months by five or six dejections occurring in the course of the day, with much straining and tenesmus. The dejections consisted generally of mucus streaked with blood; and sometimes of red blood to the amount of several ounces. Feculent matter passed rarely; once or twice in the day, perhaps, a hard scybal covered with inspissated mucus, like a skin. She did not suffer pain in the bowels either before or after an evacuation. Her appetite and digestion were bad; and she was troubled with headach and flushings in the face. She was directed to take, Magnes. Carb. gr. x., Magnes. Eij., Sulph. Tinct. Sennæ, Tinct. Lavandulæ C. aa f. 3ss., Aquæ Cinnam. f. 3j., twice a day.

After three days, she called and informed me that the draughts had produced three or four feculent dejections daily, almost unaccompanied with blood ; and that she began to feel much better. I saw nothing more of her for three weeks, when she paid me another visit, complaining of a return of the symptoms, she having discontinued the medicine as soon as she felt herself getting better.

I now instructed her to take *three grains of blue pill every night, and a Seidlitz powder every morning*, which produced one copious easy evacuation regularly. The discharge of blood ceased, and by perseverance in the plan, she got quite well.

The accumulation of feces in the colon, to a greater or less extent in constipated habits, a common occurrence, is often attended with no other inconvenience than the ordinary signs of irregular bowels, and is readily removed by purgative medicines which the patient has recourse to, from time to time, of his own accord.

It happens, however, that feces so retained will collect into one mass, obstruct altogether the channel of the bowel, and excite a high degree of irritation, even inflammation, in that portion of the colon where the mass lodges, with all the attendant symptoms of pain, tenderness, sickness, vomiting, febrile movement, and even delirium. Often a tumour may be perceived in the region to which the pain is referred, which will more generally prove to be that of the cæcum, or of the sigmoid flexure of the colon.

The Obstruction induced by this cause is obstinate, and the inflammation often very acute ; always putting life at stake, and sometimes destroying it. A correct diagnosis at the outset is of the first consequence ; for, inasmuch as the obstruction cannot generally be overcome in a less period than from five to ten days, if it happens to be regarded and treated as an idiopathic inflammation, the depletory and antiphlogistic measures adopted on this view, together with the great sufferings, will exhaust and destroy the patient before sufficient time has elapsed to admit of the obstruction being removed.

The *Diagnosis* of obstruction and consequent inflammation from feces accumulated and impacted in the cæcum or colon, will be aided, and generally may be established, by the following character of the symptoms.

The local signs, as pain, tenderness, and tension, precede the general signs of fever, and are not ushered in, though they are often followed, by chills or rigors ; nor can they be traced to any of the ordinary accidental causes of idiopathic inflammation, as cold from exposure to wind, rain, &c. Moreover the countenance is not so anxious ; nor is the febrile movement, when developed, so urgent. The pain, too, exacerbates like the pain of colic, and the vomiting is not so deadly. The usual points of obstruction are the cæcum and sigmoid flexure of the colon, in one of which regions may be felt a deep-seated circumscribed tumour, produced by the impacted mass. Added to the above, females are more liable to this kind of obstruction than males, and the history of individual

patients as to whether they were of a costive habit, or otherwise, will assist the judgment of the practitioner. Yet implicit reliance cannot always be placed on their reports, so apt are they to be themselves deceived as to the state of their bowels. At this time I have a patient under care in the hospital, suffering from obstruction and acute inflammation, caused by feces impacted in the sigmoid flexure of the colon, who, nevertheless, supposed that up to the moment of attack her bowels had been freely open. Her case will be detailed.

Should the obstruction and inflammation be seated in the sigmoid flexure, a long tube introduced into the rectum will reach the mass, and, when withdrawn, exhibit signs of fecal matter, which will be conclusive, especially if the lower part of the gut has been previously cleared by an enema.

The treatment will be considered in the chapter devoted to that subject.

The three following cases have been kindly supplied by my friend Dr. Stroud, who has allowed me to abridge them for insertion in the present work.

CASE XLVI.—Hypertrophy of the heart and disease of the aorta. Mass of feces impacted in the cæcum. Consequent inflammation of the small intestines, &c.

“ William Franklin, a strongly-built man, aged 48 years, formerly a carpenter, placed himself under my care, August 17th, 1836. He had been ill for six months, but more so since the last month, with symptoms denoting disease of the heart. His breath is offensive. He was formerly troubled with flatulence, and sometimes vomits a sour matter. His bowels are rather confined. His urine is scanty, thick, and red, and was at first passed with pain and difficulty. In the beginning of October, he had three fits of palpitation, shortness of breath, and pain, either in the praecordia, or in distant parts, the head, hips, lower end of the abdomen, &c., owing to which he was afraid to lie down.

“ On the last day of January, 1837, the heart’s action, which for some days had been increased, was first observed to be accompanied with a musical tone, afterwards ascertained by my friend, John Bishop, Esq., of Bernard Street, to be the note C, which could be heard without any acoustic medium at some distance from the patient. From this time till his death, which took place on the 2d of March, his complaint was aggravated, with increasing weakness of body, and irritability of mind, swelling and numbness of the left arm and leg, pain and heat of the praecordia, palpitation extending to the throat, and at times a sense of tumour in the left axilla.

“ On the 17th of February he began to be affected with bilious vomiting, and with pain and heat at the top of the head. On the 19th, the vomiting became more constant, the morbid sounds of the praecordia were increased, the bowels were not open without the aid of a glyster, and the abdomen was so painful as to cause

the body to be bent forwards. It was afterwards discovered that, owing to a concealed aversion, this man had often refused to use the opening medicines prescribed for him, and that constipation had consequently taken place, which at length terminated in ileus and enteritis. Venesection, leeches, and afterwards a blister to the abdomen, effervescent saline draughts, calomel with opium, and glysters, were now actively employed; but, as the constipation was never properly subdued, the relief afforded was merely partial. Hiccup supervened. On the 26th, the vomiting became stercoraceous. During the efforts to vomit, the sound of the heart was augmented. The belly was hard and tumid, the tongue swollen, with a yellow crust in the middle, and red edges. He had much thirst, some delirium, and little sleep, except what was procured by narcotics. On the 1st of March the musical tone of the heart was still audible, and followed by a second and feebler sound in the direction of the left auricle. The radial pulse was full and strong, and there was a sense of constriction and debility in the upper part of the chest. On the 2d of March, about eleven in the forenoon, being the twelfth day of the abdominal inflammation, and about six months and a half from the commencement of my attendance, he quietly expired.

"On inspecting the body twenty-four hours after death, the following appearances were observed:—

"*Thorax.*—The heart exceeded in bulk two fists of the subject; and, when removed from the body, a large well-defined cavity was left between the opposite lungs. The pericardium was healthy, and contained a little colourless serum. The heart enclosed much blood on both sides, partly in the state of soft deep-red coagulum, partly in that of pale or yellowish semitransparent polypoid masses, but chiefly liquid. The right auricle was much dilated and distended. Its *musculi pectinati* were extensive but slender. The right ventricle was narrow and moderately thick; the pulmonary artery large and thin. The left auricle was less dilated than the right. In both, the *auriculae propriæ* were deep, but not strong. The left ventricle was dilated and hypertrophied. Its walls were of a bright and healthy aspect, and at least an inch thick. The cardiac valves were sound. The mitral was large and deep, and its *carniæ columnæ* were very strong. The aorta was to twice the usual size, if not more, moderately thick, of a yellowish colour, and deficient in elasticity, but neither scabrous nor ossified. Externally, at its root, was a dense network of injected *vasa vasorum*; internally, a few opaque patches, which were scarcely prominent, but one of them encroached a little on the orifice of the right coronary artery. A similar morbid state, but gradually decreasing in degree, pervaded the whole thoracic aorta, which also contained a long rope of firm red coagulum. All the other vascular trunks were, likewise, distended with blood, and the coronary vessels were much injected, particularly the minute arteries. The arterial valves were thin but perfect. Those of the aorta had grown with the artery itself to a proportional size.

“Abdomen.”—The peritoneal sac was free from liquid. The omentum was destitute of fat, smoothly spread over the intestines, and attached at its lowest end to the mesentery by a bridle of adhesion. The parietal peritoneum showed no signs of inflammation, but the small intestines were inflamed, from the pylorus to the beginning of the ileum, being plump, inflated, and of a dull brick-red colour, with long ribbon-like streaks, probably produced by their partial contact. The omentum was voluminous and thin; but on section, discharged a large quantity of opaque yellow liquid. A similar liquid, but less abundant, was found in the inflamed intestines. The stomach was large and rather thin, without rugæ or vascularity. The cardiac orifice was natural, the pyloric rather hard and contracted. The ileum was pale, empty, and small; the inflammation having been strictly confined to the duodenum and jejunum. The more immediate seat of this inflammation seemed to have been the middle coat, neither the peritoneal nor the mucous showing much redness. With the exception of a single ossified gland, attached to the ileum, the mesentery and its glands were sound.

“The cæcum was distended by a large oblong ball of very hard, but otherwise natural feces, on which the intestine had contracted, so as to produce various bulgings and indentations. Hence, in bulk and general form, the ball resembled an overgrown potato, in surface a mulberry calculus on a large scale. The appendix vermiformis was long, narrow, and pervious. The colon, which was pale and contracted, contained slender pieces of hardened feces. Its lower end and the rectum were wider.

“*Remarks.—In this, as in some other cases, constipation was insidious and unsuspected, having been occasioned by the secret repugnance of the patient to take the aperient medicines prescribed for him, a repugnance probably suggested by the ill effects which he had endured from over-purging many years before. Among the remarkable circumstances of the case may be mentioned,—the limited extent of the obstruction, confined to a single large ball of indurated feces;—its peculiar situation in the cæcum, where it did not absolutely close the passage; and its partial influence on the jejunum, duodenum, and omentum, which were actively inflamed, while the ileum and colon, although much nearer to the source of irritation, as well as the parietal peritoneum, were unaffected. The unusual length and permeability of the appendix vermiformis, considered in conjunction with the fecal accumulation in its vicinity, may serve to show that the function ascribed to it by some authors, of preventing constipation by furnishing a large supply of lubricating mucus, is somewhat problematical. Had the nature of the case been ascertained during life at a period sufficiently early, the repeated exhibition of emollient glysters, in the manner recommended by Dr. O’Beirne, would apparently have been the best, if not the only remedy.”*

CASE XLVII.—*Diabetes.* Death accelerated by an accumulation of feces in the colon.

"On the 17th of February, 1835, Isabella Heffer, about 33 years of age, was placed under my care. For a year or longer she has been labouring under diabetes, but more decidedly since the last six or seven months. Her principal present symptoms are, an excessive secretion of saccharine urine, costiveness, sometimes for several days, with hard, dark-coloured motions, deficient perspiration, a harsh dry skin, great thirst, and a gradual reduction of flesh and strength. She has some redness of face and eyes, and occasionally pain in the forehead, but not much in the loins. Her pulse is weak and frequent, her tongue red at the edges, dry, rough, and brown in the middle. Her breath has a sour smell. She has a strong appetite, and takes much food. Her sleep is disturbed by dreams, and frequent calls to make water, and her legs are often affected with cramps during the night.

"Mild opening medicine, consisting chiefly of the sulphate and carbonate of soda, having been administered, her bowels were much relaxed, but without pain. The first motions were scybalous, the subsequent ones liquid, dark-coloured, and offensive. Stronger medicine produced similar effects; but, without aperients of some kind, the bowels became confined, and the motions hard. The urine was usually pale and sweet, and its daily amount from six to twelve pints. Having on one occasion been examined by Dr. Burne, its specific gravity was found to be 1032, and, on evaporation, a pint yielded eight or nine drachms of saccharine extract.

"Eighteen days after the first report, she had the misfortune to be knocked down and run over by a butcher's cart, by which her left arm and knee were much bruised, and her whole system received a severe shock, producing nervousness, debility, and soreness in the upper part of the abdomen, and apparently accelerating her death; which took place rather unexpectedly eleven days afterwards.

"Her death was more immediately induced by a sort of cholericidal attack, founded on a very constipated state of bowels, which had seemingly been induced by a long course of over-eating, and neglect of aperient medicine, and had not been sufficiently noticed, or suspected. This attack occupied four days. During the two first of them she repeatedly vomited a sour, fetid, dark-coloured liquid, and had pains in the loins, limbs, and lower part of the belly. During the two last she had no vomiting, but sank into somnolency, and finally into stupor and insensibility.

"An *inspection* took place forty-eight hours after death, with the following results:—

"*Ibdomen.*—The belly was much distended by inflated bowels, which on the division of the peritoneum were ready to burst forth. There was no liquid in the peritoneal sac. The colon seemed to be elongated and displaced, as is usual when it is the seat of mechanical obstruction. The transverse arch was drawn upwards, carrying the omentum with it. The sigmoid flexure was long, and the

longitudinal bands were somewhat dilated. The whole colon was much distended, containing a large quantity of hardened, but otherwise healthy feces, partly in detached balls, with intervening portions of gas, partly in more continuous masses, especially at the lower end, and in the rectum, which was so much loaded, that the superincumbent uterus had in consequence become compressed and indented. The small intestines were plump and full, containing some liquid and more gas, and the lower end of the ileum, solid feces. The upper end of the alimentary canal, from the jejunum to the oesophagus, was lined internally with a dark green, and semi-seculent pulp. The mucous membrane seemed to be somewhat congested, but all the intestinal coats were thin and soft, without inflammation or ulceration; and the mesentery, with its glands, was nearly sound.

"The kidneys were of full size, rather firm, and exhaled a peculiar odour, having somewhat the character of caromel or burnt sugar. The cortical substance was of a pink red, and the mammillary processes, which were remarkably prominent, were of a deep purplish colour.

"*Remark.*—In this case, whatever may have been the influence of the original diabetes, the fatal termination was evidently accelerated by the effects of great and unsuspected constipation, aided by the shock arising from a serious accident."

CASE XLVIII.—Visceral Disease. Dropsy. Ileus from seculent masses accumulated insidiously in the large intestine.

"Christopher Willoughby, a tall well-made man, aged 63 years, came under my care, February 7, 1833. During the last three years he has had a chronic pectoral complaint, especially in winter. For some months past a degree of dropsy has supervened.

"The sequel of this case did not materially differ from that of similar cases of chronic visceral inflammation attended with dropsy. Incurable, but admitting of palliation, it ran on with slight variation of symptoms for somewhat more than five months, when it was terminated rather abruptly by a fatal attack of ileus, the result of unexpected constipation, originating probably in organic changes. The state of the bowels was at different times relaxed, or confined, and the motions either dark-colored, or pale, with occasional pain, or flatulence.

"At length, on the evening of July 6th, after constipation for two days, he was attacked with sickness, and in the course of that and the following day vomited between five and six pints of a blackish curdled liquid, accompanied with a burning pain in the pit of the stomach, and right hypochondrium, and occasional hiccup, but the belly bore pressure well. He was at the same time faint and languid, and seemed to expect death. His pulse was weak and frequent, his tongue white, and afterwards yellow in the middle, with red edges, slightly inflamed gums, and thirst. The swelling of the abdomen was diminished, and the legs were even slender.

"A blister was applied to the pit of the stomach, and aperient medicine of different kinds, with composing pills, and effervescent saline draughts, were administered without benefit. The bowels were scarcely opened by ordinary glysters, and one or two of tobacco infusion immediately returned without effect. A small quantity of scybalous matter was discharged. Several pints of thin dark-coloured bitter liquid, ultimately of a stercoreaceous character, were vomited, and between whiles flowed without effort from the corners of the mouth. He died slowly on the evening of the 12th of July, after a gradual and progressive extinction of sensibility, with slight delirium.

"On inspection forty-eight hours after death, the following appearances were observed:—

"*Abdomen.*—On dividing the linea alba, the omentum and transverse arch of the colon were found rather extensively adhering to the parietes, at and near the epigastrium. The peritoneum lining the abdominal muscles, was of a dark venous colour, and almost everywhere coated with a transparent film or false membrane, like gold-beater's skin, which could be peeled off in a broad sheet. The peritoneal sac contained a gallon or more of serous liquid, which at the lower part was transparent and of a deep colour, like brandy, with a few albuminous flakes: but at the upper part was more opaque and yellow, as if mixed with bile. Yet, as the gall-bladder, which was small and thickened, contained little bile, and the adjacent surfaces were not tinged, the source of this colour, unless derived from the blood, was not obvious.

"The omentum, which had a granular aspect, was retracted under the left extremity of the stomach, and was attached to the opposite parietes by a sheet of false membrane extending from its lower edge. The intestines presented a confused and irregular appearance, owing to adhesions and the loaded state of the colon noticed below. The oesophagus was large and full of feculent liquid; the stomach of good size, its lining membrane of a dark colour, but sound, and the pylorus narrow and rigid, so as scarcely to admit the point of the fore-finger. The small intestines generally were plump and livid from venous congestion, one particular part being nearly of the colour of Prussian blue. The duodenum was small, thin, and soft, readily tearing on any attempt to disentangle it.

"The large intestine was universally bound down by adhesions to the stomach, duodenum, liver, and adjacent parietes, and, from the cæcum downwards, was obstructed by large balls of hardened feces, with intervening contractions. The liver was of full size, and attached by numerous adhesions to the diaphragm, duodenum, colon, and abdominal parietes. Its external surface was natural, its substance uniformly firm and fleshy, and of a deep pink colour, without mottling or deposit of any kind. Owing to its density, it presented considerable resistance to the scalpel, and when cut yielded a crisp sound, which could be heard at the distance of several feet.

"*Remark.*—In this case, the constipation, which came on insi-

diously and without suspicion, was doubtless promoted and increased by the numerous and firm adhesions, the result of long-continued chronic inflammation, by which the colon was closely attached to all the neighbouring parts, and its peristaltic motion proportionally impeded."

CASE XLIX.—Obstruction and acute inflammation from feces, accumulated and impacted in the sigmoid flexure. Maniacal delirium. Recovery.

On the 3d of November, 1838, I was called to Chelsea, in consultation with Mr. Barnes, on the case of a young female, about 17 years of age, labouring under obstruction of the bowels, which had persisted many days.

She was suffering from pain and great tenderness in the left ilio-inguinal region, where could be distinguished a circumscribed unyielding tumour of considerable size. The rest of the abdomen was full and flatulent, but not painful nor very tender. She had vomited, had high fever, flushed face, frequent pulse, and foul tongue. She was maniacally delirious; viz: wide awake, talking incoherently, first on one subject, then on another, good-tempered, however, and smiling; at times excited; and she did not sleep.

I was informed that she was of a most costive habit, never having a dejection without strong medicine. It was therefore concluded that the tumour consisted of feculent matter impacted in the sigmoid flexure of the colon, and that the gastric and cerebral symptoms were sympathetic of the obstruction. She had been bled, and had taken the strongest purgatives without avail. It was therefore now decided to desist from violent measures, and to adopt a mild treatment of *calomel, saline effervescent aperients, and injections*.

The injections would not pass beyond a certain point, but being persevered in, together with the other remedies, feculent matter began to come away, and in the course of three days the whole of the tumour was removed. The action of the bowels being restored, not only did the abdominal but all the cerebral symptoms subside, and convalescence was soon established.

The peculiar character of the delirium in the preceding case is worthy of remark, as it forms by no means a solitary instance of cerebral excitement and disorder of the manifestations of the mind as a consequence sympathetic of habitual constipation, and of accumulation of feces in the large intestine. I have under care, at the present time, a very severe case of a similar description in an interesting young lady, age 19, whose bowels have been habitually and obstinately confined, and in whom no other remote cause than habitual obstinate constipation can be traced.

The history of many of the cases in the present work details cerebral and nervous symptoms of great severity as ordinary consequences of habitual constipation, viz., violent, and often distracting pains in the head with determination of blood, causing heaviness, giddiness, apoplexy: or low spirits, hypochondriasis, maniacal delirium, and mental alienation.

Mr. Annesley, in his great work on the Diseases of India,* relates several cases of "Hypochondriasis," "Melancholia," "Mental Excitement," "Alienation," and "Mania," as connected with accumulations of morbid matters in the bowels, all of which recovered under "a most active and uninterrupted course of purgative medicines, in conjunction with other means."

M. Esquirol, in an able article on Melancholia,† states that of 168 cases the colon was variously displaced in 33, and that constipation existed, which he viewed as the effect of the displacement. But I should coincide with Mr. Annesley in regarding these displacements as probable consequences of the accumulation of feculent matter in the colon: the weight causing the meso-colon to elongate, and to favour displacement.

Whatever may be the *relation between habitual constipation and diseases of the brain and mind*, the subject is of the first importance, and hitherto but little inquired into. It offers an extensive field, rich but uncultivated, ready to yield an abundant return to the industrious labourer. Opportunities for observation and inquiry cannot be wanting where such splendid institutions as Bethlem, St. Luke's and other public hospitals and asylums, exist for the treatment and safe abode of the *disordered in mind*. It only requires that the opportunities should be appreciated by those who enjoy them, and then the so-called "diseases of the mind" would soon be as well understood as the other departments of medical science: whereas, at present they are overspread with an utter darkness.‡

In another case of obstruction which I attended with Mr. Heath, ten days elapsed before the bowels could be brought to act, during which period the vomiting was very urgent, and the matter ejected stercoreaceous, constituting a most severe case of ileus. The vital powers were so depressed that life was despaired of; scarcely a pulse could be felt for two or three days, and the skin, though not

* Vol. ii. p. 117, *et seq.*

† Dict. des Sciences Médicales, tome xxxii. p. 171, 172.

‡ It is a natural feeling on the part of the governors of lunatic hospitals, that the objects of their benevolence should be secured from the gaze of the curious, and that the admittance of the public should be most restricted and difficult: but as this is observed towards the medical profession, as well as towards the public, it closes the door against the advancement of science. From the lunatic hospitals no reports of cases, no details of dissections proceed; and the medical profession, though daily called upon for their aid and advice in the treatment of insanity, have not the means of gaining the information necessary to qualify them for the task. How much then must the public suffer! This consideration will, it may be hoped, suggest to the governors of these institutions the benefit they might confer on the public, and on the unfortunate objects of their care, by permitting medical men and medical students to frequent the wards of their lunatic hospitals, under proper regulations, as they do the wards of the general hospitals of the kingdom, and by establishing within the walls of their institutions courses of lectures on the Anatomy, Physiology, and Pathology of the Brain; on Psychology; and on the Treatment of the Insane. The day, I trust, and have reason to believe, is not far distant when these great objects of science and of public welfare will be attained.

absolutely clammy, was much below the natural temperature. In this, as in the case preceding, very strong purgatives had failed, and the bowels eventually acted by persevering in a calomel and saline aperient treatment.

CASE L.—Colonitis or acute inflammation of the colon with ulceration. Displacement of the colon. Habitual constipation.

Rebecca Buchanan, age 23, was received into Westminster Hospital on the 25th of October, 1839.

She had been delivered on the 7th of October, and went on well till the 11th, when she was seized with cold chills, pain in the abdomen, a sense of bearing down, and urgent tenesmus. The bowels were confined. Next day, the second of her illness, she began to vomit, the abdomen swelled, fever supervened, and delirium. On the third day she was bled; on the 4th, the bowels began to be acted upon by medicine, and afterwards they continued relaxed till her death. Every evacuation was preceded by violent dysenteric pain, which made her scream out. The tenesmus remained constant. The dejections were very black, like blood and matter mixed, and of a bad odour. The swelling of the abdomen arose from flatus, and was removed by the use of injections. She had taken a variety of medicines.

On her admission into the hospital on the 15th day of her illness, she was in a very exhausted state, suffering much in the abdomen from tenderness, frequent dejections, dysenteric pains, and an adynamic character of fever. The vomiting had abated. In the course of 5 days she sunk and died, having lived 20 days from the attack.

From her mother-in-law I have learned that she was always of a most constipated habit, and had long suffered from and complained to her of pain and tenderness on the right side of the abdomen, in the course of the ascending colon.

Necroscopy 17 hours after death.—The abdomen having been laid open, the colon was seen to be displaced, as if doubled upon itself, the arch being reversed and hanging towards the pelvis like a festoon, so that its convexity looked downward and reached near to the pubis. In this position, the right and left posterior surfaces of the reversed arch or festoon lay upon and were adherent to the anterior surfaces of the ascending and descending colon. The left border and inferior portion of the omentum was adherent also to the descending colon, sigmoid flexure, and corresponding parietes of the abdomen. In detaching the omentum from its adhesions, it was found that the colon lacerated most readily in several places.

The internal surface of the arch and of part of the descending colon were lined by a thick tenacious elastic matter of a deep soot-black colour one and two lines in thickness, which adhered so firmly to the mucous membrane that, in attempting to detach it, the mucous membrane peeled off with it. The mucous membrane

itself was excessively softened, and although it adhered intimately to the black adventitious matter, yet it separated and peeled off from the other tissues of the colon most readily and distinctly. The interior surface of the cæcum, ascending colon, and sigmoid flexure, were nearly free from this black matter, but the mucous membrane of these parts was also soft and lacerable, was studded with superficial ulcerations, or covered with a shreddy, whitish, tenacious fibrin.

As well as the mucous, the other tissues of the colon were soft and lacerable. The colon contained a fluid of the same melanotic description as that voided during life. The other viscera normal.

Remarks.—Allowing for the difference of intensity in disease in this and in hot climates, the above case presents an example of acute dysentery, viz. inflammation of the colon, corresponding in every particular with many of the cases related by Mr. Annesley.

The organic changes of softening and ulceration of the tissues of the colon were more general and in a greater degree than I remember to have seen on any previous occasion, and may be considered of rare occurrence in this climate. The pain in the region of the ascending colon, of which the patient had long complained, gives reason to believe that this gut was in an unsound condition prior to the fatal attack, which prior affection of the colon, as also the acute dysentery, may be ascribed, the one immediately, the other remotely, to the irritation of the feculent matter retained by the constipation habitual to this patient.

On two other occasions, I have met with acute inflammation of the colon, the signs of which were more or less obscure: the obscurity attributable to the fact, that our knowledge of the pathology of the colon is less advanced than that of the other portions of the alimentary canal.

The *displacement of the colon* is a point of interest as connected with the habitual constipation, it being far from improbable that the weight of feces accumulated may gradually have produced elongation of the meso-colon, and brought about this change of position. In India, irregular flexures, displacements, and elongations of the colon, were met with very frequently by Mr. Annesley, and attributed by him to the influence of accumulations of feculent matter, and to the greater laxity of tissues in hot climates.*

Examples of the abnormal position of the colon have been lately published by Dr. Buchanan:† and they no doubt are of frequent occurrence. Various instances are recorded by Morgagni: and I have myself seen several.

CASE LI.—Stricture of the colon. Communication between the ileon and the colon below the stricture.

(Communicated by the late Mr. Jukes.)

“ Mrs. H——, age 63, the mother of six children, had been trou-

* Diseases of India, vol. ii. p. 89.

† London Medical Gazette for July 27, 1839.

bled with obstinate bowels the greater part of her life ; but for some time before I saw her in April 1796, the difficulty of getting stools had increased and occasioned fits of pain, which were seldom relieved till evacuation had been procured.

" Latterly, the usual measures had failed altogether ; the belly was become tumid and the colon was evidently loaded. Aperients and enemas brought but an inconsiderable quantity of matter from the bowels, for which reason they were persevered in ; and, as the bowels became unloaded, considerable relief was obtained, and I discontinued my attendance on the 5th of June. From this time to the beginning of October I conclude she went on pretty well, as there is no note of my having seen her in July, August, or September. In October she was bled once generally, and several times locally, the belly being tympanitic, her sufferings very great, and no relief obtained by the warm bath or enemas.

" About the middle of November clammy sweats came on, the pulse was scarcely distinguishable, and dissolution was hourly expected, when a purging unexpectedly took place, and every symptom of immediate danger subsided. She lived on in comparative ease till the end of January 1797, when she expired.

" On opening the cavity of the abdomen, the marks of inflammation were so general, and the contents so firmly united, as to produce considerable difficulty in tracing out the exact nature of the change. Several inches of the colon about its sigmoid flexure were contracted, thickened, and all but impervious to the passage of a probe : the contracted part was almost of a cartilaginous hardness, and ulceration had commenced. The lower portion of the ileon was united to the colon immediately below the stricture, and life preserved for the last few months, by the communication which had thus taken place between them."

Allied to the foregoing case of communication between the ileon and colon, I have, on dissection, met with several instances of obstruction from organic disease, in which the process of communication between the bowel above the point of obstruction and the gut below has been commenced, but death had ensued before it was completed.

In a case of obstruction from disease of the cæcum, the sigmoid flexure of the colon stretched over to the right side and had contracted an adhesion with the ileon near the cæcum, the ileon being enormously distended with feculent matter. Had life been prolonged but a short time, a communication would have been effected, and the channel of the bowel restored. This and many other examples in which the sigmoid flexure of the colon has been found stretching across the lower regions of the abdomen, have led me to conjecture that one use of the loose and tortuous sigmoid flexure may be to provide the means of communication, and so to restore the channel of the bowel when an obstruction has taken place, which, without this resource, would inevitably and quickly prove fatal.

Hypertrophy and induration of the submucous tissue of the colon are consequences of habitual constipation, more frequent than stricture,—extend through a part or the whole of this bowel, and render it less dilatable and less capacious than natural.

The submucous tissue in these instances is white, very coarse in its reticular texture, often a line or more in thickness, very inelastic, and unyielding. The gut is contracted wherever its parieties are thus thickened, and the canal consequently materially and permanently diminished, for it is altogether undilatable by either gas or feces. The mucous membrane is swollen, vascular, its free surface less smooth than natural, as it were coarsely villous, and having a resemblance to flock paper.

These changes are the result of irritation and sub-acute pathological congestion, excited by retained excrementitious matter in persons habitually constipated.

CHAPTER VIII.

OF DISEASES OF THE RECTUM AS CONSEQUENCES OF HABITUAL CONSTIPATION.

Impaction of feces in the rectum. Dilatation of the rectum. Prolapsus ani. Piles. Fissures. Fistula. Rigidity of the sphincter ani. Stricture. Supposed stricture.

THE accumulation and impaction of feces may take place in the rectum, dilating it excessively and straining the muscular fibres of the bowel so that they lose their power of expulsion. In this manner the whole pelvis may be filled by a dilated loaded rectum. This residual matter, accumulated in such quantity, acts soon as a foreign body, the organic sensibility of the rectum not being adapted to its continued presence. Irritation is the result, then diarrhoea, tenesmus, a sense of bearing down, difficult micturition, and at times absolute retention of urine.

Hardened feces, thus collected, cannot be expelled without artificial aid: yet, as is justly remarked by Mr. Chevalier,* that which is softer may pass over this impacted mass in daily evacuations, and thus conceal the real mischief. In other instances these accumulations in the rectum will so entirely obstruct the action of the bowels as to induce symptoms resembling hernia.

The diarrhoea which frequently attends and obscures an accumulation of feces in the rectum has been commented upon, in a very lucid manner, by Dr. John Warren of Taunton, the first person

* See Observations on the Relaxed Rectum: by Thomas Chevalier, Esq., F.R.S. Medical and Chirurgical Transactions, vol. x. p. 400.

who appears to have discovered and thoroughly understood this cause of enteritic obstruction. His diagnosis of impaction, and of the diarrhoea resulting from it, is so clear and practical, that I must follow the example of Dr. O'Beirne, and quote in his own words.

" That this disease (says Dr. J. Warren) may, in future, be more easily distinguished from diarrhoea, which is so opposite to it in its nature, and with which it is so apt to be confounded, it may not be improper to remark, that in each of these cases above narrated, as well as in every other which I have seen of this disorder, the pain is principally seated in the lower part of the abdomen, and is always accompanied with a tenesmus, or a sense of bearing down, which is never attendant on a simple diarrhoea ; that the motions are at all times inconsiderable, and in general mixed with small scybala ; and that it is a disease which does not yield to any remedy administered under the supposition of its being only a purging. It is likewise worthy of notice, as a further diagnostic, that the pains attending it are infinitely more acute than any ever experienced in a diarrhoea. I must also add that it is a disorder peculiar to persons in advanced life (pregnant women excepted), as I have never met with an instance of it in patients of any age under sixty. I have, moreover, observed, that the female sex are more obnoxious to it than the male."*

Prolapsus ani is a very common and distressing consequence of habitual constipation, and arises, in great measure, from ineffectual efforts at the closet. So also does one kind of piles.†

The rectum, from habitual neglect of the calls of nature, loses its tone and sensibility, and the presence of feculent matter no longer stimulates to excretion : while the sense of uneasiness, the absence of evacuations, and an indistinct desire, causes the individual to strive to accomplish that, by means of the abdominal muscles, which is the proper office of the bowel. The pressure by the muscles of the abdomen, unassisted by the rectum, forces down the bowel without expelling its contents, a small scybal only being the result of all the endeavours. The consequence is, that a portion of the mucous membrane is forced below the sphincter, is pinched and retained by it : and the same thing occurring, time after time, piles are in this way formed.

Similar efforts will sometimes cause an entire portion of the bowel to protrude beyond the sphincter ; and, constipation continuing, and the same efforts being repeated, a confirmed prolapsus is the final result. The cause which produced, prolongs it ; and it is in vain to attempt the cure of a prolapsus, produced in this manner, without at the same time regulating the action of the large intestine, and thus obviating the cause.

Fissures, likewise, are apt to arise under the same circumstances, the hard scybalous feces, being forced through the sphincter by the

* Duncan's Medical Commentaries, vol. x. p. 260.

† See the Cyclopaedia of Practical Medicine, vol. iv. p. 591, article Hæmorrhoids: by the Author.

efforts of the abdominal muscles, irritate and lacerate the mucous membrane: and the heat and irritation about the rectum consequent on habitual constipation contribute not only to produce, but to prolong, these annoying complaints.

The same irritation, from the same cause, will often induce *abcess* and *fistula*: but it is not my purpose to enter at length into the subjects of this chapter, seeing that they belong particularly to the department of surgery. My principal aim is to show that habitual constipation is one of the most frequent causes of these distressing complaints; and, therefore, that strict attention to the daily evacuation of the bowels, by appropriate laxatives, is requisite, not as a preventive only, but as a part of the treatment necessary to the cure.

One remark further I may venture upon. It is, that the severe, even alarming, *haemorrhage*, which not uncommonly follows operations for fistula, arises from the abnormal vascularity of the rectum and pelvic viscera, the consequence of the irritation which always ensues from habitual constipation. For this reason I would urge the propriety of delaying the operation of fistula till the bowels have been regulated for some weeks, and the irritability and vascularity of the parts, by this means, diminished.

CASE LII.—Feces impacted in the rectum, with purging and violent tenesmus.

(Communicated by the late Mr. Jukes.)

“Mrs. W. had for years suffered from constipated bowels brought on, as she believes, by neglecting the calls of nature. Days would pass away without any proper evacuation. When I saw her, a contrary state of bowels had taken place, she being now much harassed by purging, which had existed more or less for many months. She had been in London on account of the bad state of health of a son who resided there, and took the advice of an eminent and experienced physician: and the purging was not only diminished but restrained for a time by the measures he recommended.

“She returned home, and soon afterwards had a recurrence of the complaint; which did not again yield to the measures which had given her much relief in town. In this state I saw her, and heard the history of her disorder, which induced me to think this relaxed state of bowels might be kept up by the retention of improper matter; which, however, she conceived impossible, and submitted unwillingly to the use of aperients and injections; and as no speedy relief was obtained by them, she was the more confirmed in her own opinion. Violent tenesmus, however, came on, with a bearing down most intolerable; much worse, she said, than she had ever experienced in any of her confinements. I examined the rectum and found a mass of hard matter which I could not break to pieces without the aid of an instrument. The mass consisted of a variety of undigested substances, which, when broken

down, were washed away by injections, to the perfect relief of the patient.

"The general health had been greatly impaired by the long continued irritation produced in the stomach and bowels by the retention of this matter; but mild aperients, conjoined with bitters, very soon restored her to a good state of health.

CASE LIII.—Feces impacted in the rectum, with purging and vomiting.

(Communicated by the late Mr. Jukes.)

"Mrs. Jones, about 52 years of age, a nervous, irritable woman, with torpid bowels requiring attention, was seized with sickness, vomiting, and purging, which continued for some days. She then had vain efforts to relieve the bowels, with a violent bearing down; and believing there was something to pass away, she had recourse to clysters; but without any relief. In this state I saw her; and, on examination, found a hard lump of matter in the rectum; which, having been broken to pieces and washed away, all the symptoms disappeared.

CASE LIV.—Dilatation of the rectum from accumulation of soft feculent matter. Supposed stricture. Wax candle used as a bougie slipped into the rectum. Nervous symptoms.

(Communicated by the late Mr. Jukes.)

"Mrs. B., aged 67, has for years laboured under a highly disordered state of the digestive organs, and, from the small and unsatisfactory nature of the evacuations, her medical attendant was induced to believe there was a stricture in the rectum, and a bougie was introduced with a confirmation on his mind of the correctness of that opinion. She had directions to use the bougie when necessary at her own discretion. Being from home, and without the bougie, she substituted, at bedtime, about six inches of wax candle, which, in the course of the night, slipped into the rectum. Some relief was obtained the next day, and nothing more was thought of the candle.

"Within a week I was requested to visit her, she was sick and vomiting, and had a great sense of bearing down, which her usual measures had failed to relieve. The above history was then given, and on examining the rectum, the sphincter was rigidly contracted, and the gut itself greatly distended with fecal matter by no means hard or resisting. In this mass was the candle, broken into two pieces, held together by the wick; this, with a large quantity of feculent matter, was removed from the rectum, which I found greatly distended. Of course she had no stricture.

"This lady, who had been troubled for years with almost every nervous symptom which a morbid state of the digestive organs is capable of producing, has enjoyed a good state of health since daily attention has been paid to the unloading of the colon and rectum."

CASE LV.—Feces impacted in the rectum producing symptoms of strangulated hernia.

“Mr. Callaway (to whom I am indebted for this case) was called to a lady, 64 years of age, affected with symptoms of strangulated hernia; namely, vomiting, constipation, tumid and tender abdomen, and anxious countenance. He could not detect any tumour in the usual situations for hernial protrusion; and being informed that the constipation had existed eleven days, and that the nurse could not throw up the enemas prescribed, he was induced to examine the rectum, where he at once discovered a firm unyielding mass, blocking up and obstructing the bowel. This mass was removed with great difficulty; and, on examination by a chemical friend, was found to be composed of soap, rhubarb, and cholesterine, which was explained by the fact of the old lady having been for a considerable time in the habit of taking, as an aperient, pills composed of soap and rhubarb.

“Soon after the impacted mass had been removed, the aperient medicines, given previously by the medical attendant, operated, to the entire relief of the vomiting and other symptoms.”

CASE LVI.—Feces impacted in the rectum. Dysuria. Gout.

[Communicated by Mr. Morgan.]

“A lady, 64 years of age, consulted me in September, 1829, for an obstinate constipation of the bowels. She had been confined to her chamber, and partly to her bed, by a fit of the gout, with which she had been occasionally afflicted for some years past. For some days she had endured great uneasiness, and a bearing down like labour pains.

“I attempted by medicines to relieve her, without success. The nurse was then directed to administer an enema, which she found herself unable to accomplish, and I now proposed to examine the bowel. To this the lady strongly objected, on the grounds that her bowels were open; for the cathartics had caused some dark-coloured fluid feculent matter to pass, which had deceived the old lady regarding her state.

“An examination having, at length, been acceded to, I found the rectum so distended with feces as to fill the pelvis, and, by pressing upon the neck of the bladder, materially to impede the discharge of the urine. I unloaded the bowel without delay, and removed an amazing quantity of arid feces, to the astonishment of the attendants and relatives. This having been accomplished, all the disagreeable symptoms, together with the gout, vanished, and, by the use of mild aperients, she soon became convalescent.”

CASE LVII.—Feces impacted in the rectum. Aphthæ. Erysipelas. Fatal.

[Communicated by Mr. Morgan.]

“A lady of the age of 80 was brought to London from Walthamstow, for the purpose of being under my care. The circumstances

of this case differed but little from the preceding, except that the constipation had been of longer standing, and her actual condition undiscovered. She had taken aperients for three months with no other effect than the removal of hard scybals. The nurse was directed to administer an enema, but, finding it impossible, I suspected a loaded state of the rectum, and proceeded accordingly.

"The accumulation, in this case, was greater than in the former, and more difficult to remove; the fecal matter being very arid; it was, moreover, inodorous, and of light specific gravity. The old lady was very weak, and much depressed: the constitution had sympathised greatly with this local affection; the tongue and fauces were aphthous: an erythematous blush showed itself about the mouth and nose, precursory to an extended erysipelas, which spread over the face and head, and extended also to the nates and neighbouring parts. Under these severe complaints she sunk and died in about ten days."

CASE LVIII.—Feces impacted in the rectum. Retention of urine. Piles.
[Communicated by Mr. Morgan.]

"A lady, 50 years of age, came to town from Sussex to consult the late Mr. Abernethy on account of some excrescences round the anus, supposed to be piles, which, in truth, they were.

"Disliking Mr. Abernethy, she placed herself under the care of another surgeon of great eminence, who proceeded to strangulate the piles; ordering, at the same time, aperient medicines, which, although continued two or three days, produced no adequate effect. The surgeon was now summoned to her suddenly, on account of great pain and bearing down, as well as a total obstruction to her making water. I was sent for to draw off the urine, and, proceeding accordingly, found the neck of the bladder so pressed upon as not to admit the passage of the catheter. I directly suspected the bowel to be the seat of mischief, but the patient being irritable and delicate, it was long before I could persuade her to allow an examination to be made. At length she submitted, and I removed a load of feces equal, nay, larger, in quantity, than in either of the two preceding cases.

"The rectum being emptied, she made water immediately, and, with proper attention to the alimentary canal, soon recovered."

Rigidity of the Sphincter Ani.—The sphincter, placed at the extremity of the rectum, is a very powerful muscle serving to keep constantly closed the aperture of the gut. It yields with sympathetic consent to the passage of the excrementitious matter, when urged on by the combined action of the bowel and abdominal muscles, provided this action takes place once or twice daily, in accordance with the law of nature. But if the action of the bowel is less frequent, as from habitual constipation, then the sphincter, seldom dilated by the passage of evacuations, contracts more and more, and eventually becomes unyielding and rigid; a state which offers more or less impediment to the action of the rectum, and encourages and increases the constipation.

This rigidity has been mistaken for stricture of the bowel, and is so decided in many cases, as to require special treatment by the bougie to overcome it; a point to which sufficient attention has not, I think, been generally accorded. Mr. Copeland* evidently describes this state of rigidity, when he speaks of having frequently met with cases of very obstinate habitual constipation, in which "the sphincter muscle was either unusually strong in its action, or unusually extensive and broad," and which he treated successfully by the bougie. By him it is regarded rather as a cause than a consequence of habitual constipation; a point on which, with deference to his experience, I differ from him. O'Beirne† refers the difficulty in these cases to the upper extremity of the rectum, which he considers to be in a state of stricture.

CASE LIX.—Rigidity of the sphincter ani, mistaken for stricture of the bowels.

An unmarried lady, near 50 years of age, had long suffered from most obstinate habitual constipation, and its consequences, headach, impaired vision, flatulence, dyspepsia, and so on, for which she had consulted several physicians and surgeons without receiving much relief. Of these, a surgeon pronounced her complaint to be a stricture of the rectum, and treated it by the introduction of the bougie; during the use of which the bowels acted more regularly, and her complaints were mitigated: but, having discontinued this treatment, all the symptoms returned.

The description of her sufferings led me to question the existence of a stricture; on which the lady replied, there could be no doubt of it, for it had produced a circular indentation on the bougie, which she herself saw. I proposed a consultation with an eminent accoucheur, which was acceded to. No stricture was found: "What might have been," said he, "I know not, but there is no stricture now." The sphincter, however, was firmly contracted and rigid; which may have indented the bougie and confirmed the error.

CASE LX.—Excessive rigidity of the sphincter, particularly of its internal portion. Dilated rectum. Dyspepsia, &c.

Mary Marshall, age 28, married nine years, but had not borne a child, complained of great difficulty in relieving the bowels; of an almost constant indistinct desire to retire to the closet; and of a forcing bearing down with a sensation of tightness and fulness at the anus, a burning heat, and an occasional acute lancinating pain. When she did not take aperient medicine, the dejections, always soft, were not only passed with great and excessive striving, but were scanty: and although many occurred in the course of the day, the whole quantity was trifling and insufficient; a part

* Observations on the Principal Diseases of the Rectum and Anus: by Thomas Copeland. London, 1814, p. 48, 49.

† New Views of the Process of Defecation: by James O'Beirne, M. D., Dublin, p. 52.

being blood and mucus from the straining efforts. She had laboured under this difficulty for the last eighteen months; during the last twelve of which it has much increased. She had been subject to constipated bowels as long as she could remember; even before puberty days would pass without an evacuation. The dejections were hard, until the obstruction commenced, since which they have changed to the soft character described. In addition to the above ailments, she was troubled with sympathetic affections of the stomach and head, and was nervous and apprehensive.

Prior to her entrance into Guy's Hospital, the rectum had been examined and the disease pronounced to be stricture. Soon after her admission, she was again examined by Mr. Key. The sphincter was so contracted and unyielding that the investigation could be pursued only with gentleness and care. The mucous lining was corrugated into longitudinal folds, and at the circumference of the internal sphincter there was a resisting ring of a gristly hardness, exceedingly hot. The rectum above was sound but dilated. A bougie was introduced, and having remained in the bowel for a short time, the sphincter and gristly ring yielded, the mucous corrugations could be pressed smooth, and the bougie moved with freedom, whilst, at first, it was tightly embraced.

Mr. Key directed that an injection of *linseed oil one ounce, tincture of opium five minims*, should be administered daily, and one *drachm* of the *sesquioxide of iron* taken every night.

From this plan great benefit was derived. The patient attributed her improvement to the injections, which tranquilized the gut, diminished the number of the evacuations and increased their quantity. *Castor oil*, taken as an aperient operated much more freely and copiously than formerly; to the great relief of the local symptoms; and, as these were removed, the affections of the stomach and head were removed also.

Rigidity of the sphincter, as illustrated by the foregoing cases, is a frequent consequence of constipated bowels: and the determination of blood to the muscle, produced by the irritation of the retained excrementitious matter, in the patient Mary Marshall, Case LX., had excited a vascular action, which threatened organic change, and may have led to schirrus and cancer. The effect of the bougie in relaxing the rigidity was very marked, and bears out the opinion I have advanced of the efficacy of mechanical treatment, in these cases, in addition to medicine. In Case LIX. where the bougie was employed under the impression of stricture of the bowel, relief was complete, the bowels becoming regular under its use; and, had care been afterwards taken by the patient to promote the daily action of the bowels by appropriate medicine, a cure would have been effected.

CASE LXI.—Stricture of the rectum. Dyspepsia, and most distressing nervous symptoms.

Mr. G. W. L—, a medical student in 1829, age 23, of a melancholic temperament, had been troubled with constipated bowels for

many years; so obstinate, at times, that no dejection would take place for four or five days; seldom without medicine, and, latterly, of a very powerful description, ordinary aperients seeming to act well till they reached the rectum, and then to lose their power. He was in the habit of making a great quantity of pale urine. He felt a constant desire to go to the closet, would go many times in the day ineffectually, a small lump enveloped in mucus like a skin being all that passed: he had pain across the loins with burning pain in the rectum and griping pains in the belly: felt flatus moving about, forming as it were lumps or swellings that would rise up in the abdomen and roll about distressingly. Besides these he had every symptom that attends dyspepsia and hypochondriasis, as acidity, tightness, distention, eructation after meals, palpitation, indescribable pains, and low spirits.

He consulted Mr. Key and Mr. Copeland, both of whom found a stricture with a small ulcer an inch and a half or two inches within the sphincter. In addition to local treatment he was advised to try the following:—*R. Liq. Hydrarg. Bichloridi. f. ʒi.; Tinct. Sennæ f. ʒij. M.; Coch. unum mediocre bis quotidie sumat.*

CASE LXII.—Stricture of the rectum. Constipation.

Lydia Davison, age 24, married seven years, and has had one child, habitually very costive, a week or more often elapsing without any evacuation, feeling nevertheless an indistinct desire, and making ineffectual efforts, or passing nothing more than a small hard scybal; after which blood would flow freely. About four years ago she began to experience a hot shooting pain about the anus, with itching and a tightness of the sphincter, accompanied with leucorrhœa and ardor urinæ. Within the last two years, the alvine difficulty continuing equally great, the evacuations had changed from a hard scybalous to a soft character, and were moreover flat. She was sick and ill for a day or two from time to time, and suffered also from severe headach, flushings and heats in the face, and crampy, spasmodic, ventral pains.

Eighteen months ago she had aphthous ulcers in the mouth, great heat at stomach, vast distention of the abdomen; and, during three weeks, had no evacuation whatever. At this time, a stricture of the rectum was discovered, and she was admitted into Guy's Hospital. By examination, the sphincter was found to be rigid, the lower part of the bowel healthy; but higher up, yet within reach of the finger, was a decided contraction one inch in extent, hard, rugous, and unyielding. She was directed to be cupped in the sacrum to four ounces, to have an injection every night, and to take the carbonate and sulphate of magnesia and tincture of senna as an aperient. A bougie to be introduced every day.

From this treatment much benefit was derived, the aperient acted efficaciously, the sphincter lost its rigidity, and the stricture yielded to the bougie.

CASE LXIII.—Annular stricture of the rectum. Enormous distention of, and feculent accumulation in the colon, mistaken in the early stage for pregnancy.

(Communicated by Mr. Taunton.)

December, 1814. A young woman, —— Dresdale, age 28, residing in Fetter Lane, had ascites about six years ago, from which she recovered perfectly. She married subsequently, and had one child.

About three years ago she grew full in the abdomen, had the usual signs of pregnancy,—suppression of the menstrua, sickness, fulness of the mammae, with dark areolæ,—and, supposing herself to be with child, engaged Mr. Bartlett to attend her. The abdomen enlarged more and more until it appeared ready to burst, and within was often a noise from flatus which she compared to that caused by immersing empty bottles in water. The bowels were remarkably costive, an evacuation not occurring more than once in a month. Neither mild or powerful aperients had any effect. Fifteen months before her death, and after having eaten strawberries, her bowels were much purged, greatly to her relief. From this period they could not be kept open either by medicine or other means.

Necrotomy.—Upon an incision being made in the linea alba and a puncture in a convolution of the small intestine, both air and feculent matter were ejected with great force. The incision having been enlarged, the colon protruded, distended enormously with feces; its circumference measuring twenty inches, and its capacity being to the extent of three gallons. The other viscera were normal, with the exception that they had suffered from pressure. The whole of the large intestine was removed and preserved by the late Mr. Taunton, and still forms part of the extensive and valuable museum prepared by the hand of that indefatigable man, and now in possession of his son, the present Mr. Taunton.

The colon resembles that of a bullock rather than of a human subject, so vast are its dimensions. The stricture is situated at the termination of the sigmoid flexure in the rectum,—is *annular* and closed, exactly as if a ligature had been passed round this part of the gut and drawn tight; the parts both above and below being neither thickened nor otherwise diseased. So completely was the channel of the bowel obstructed by this annular contraction that water would not pass either way.

Considering how much the rectum is exposed to the irritation of retained excrementitious matter, one is rather surprised that stricture of this gut is not a more frequent occurrence. It certainly is far from a rare disease; but, at the same time, it is not so common as some are of opinion; an opinion which I have known carried to a most absurd extent. But the subject is not inviting, and I will therefore only state one instance that fell within my own knowledge, and allude to another that occurred in the practice of Dr. Roots.

A medical practitioner, under my care for general indisposition,

which may not improperly be called "a breaking up of the constitution," from long continued sensuality, happened to dine at the house of a friend who had been under treatment for a stricture. This friend had derived so much benefit that he strongly advised the practitioner to consult *his* surgeon. He did so; and his complaints were at once pronounced to arise from a stricture. All this he told me when I next saw him, expressing at the same time his satisfaction and belief that his disease had been discovered. "Well," said I, "this I cannot understand! You have never had symptoms of stricture, for your bowels have acted regularly every day. Let the surgeon meet me at your house, and if there is stricture, it will be obvious to me as well as to him." We did meet. The surgeon produced a long rectum bougie, twisted it like a corkscrew, and examined the rectum; but no evidence of stricture could he afford me. The surgeon, however, persisted in his opinion that a stricture was there; and affirmed, moreover, that he could distinguish the presence of a stricture ten or twelve inches up the gut by means of the bougie. Of this I was sceptical: and left the case in his hands. The bougie treatment was persevered in, and the patient in high spirits at the prospect of cure.

In a few weeks I was requested to see the patient again. The imagined relief from the bougie had ceased with the novelty; and finding, in sad reality, that he grew worse instead of better, and remembering that he had never experienced any difficulty in the action of the bowels, he had now persuaded himself that he had *not* a stricture, and had, accordingly, declined any further mechanical treatment. He died, soon afterwards, of a sudden and severe cerebral attack; and permission having been granted to examine the body, I apprised the surgeon of it, and requested his assistance. No stricture nor trace of disease could be discovered, either in the rectum, colon, or intestinal canal.

The above is not a solitary instance of persons having been treated for a stricture where no such affection existed. Another, in which the error led to fatal consequences, was witnessed by Dr. Roots, who has favoured me with the following particulars.

The doctor was called, in great haste, one morning, to a gentleman whom he found in a most alarming state from depression of the vital powers, and indescribable pain in the abdomen. The abdomen was tense and tender; the pulse was scarcely perceptible: the skin was clammy: and the countenance anxious and haggard; all indicating the utmost danger. The surgeon in attendance—the same person as alluded to in the preceding case—reported that the symptoms arose from spasm, and informed the doctor that the patient had *two* strictures of the rectum, which, for some time past, he had been treating with the bougie;—that one had yielded;—that the patient having been out of town, returned last evening, and that he, the surgeon, endeavoured as usual, to pass the bougie, but could not succeed on account of a spasm of the gut;—that he persevered, when suddenly the patient complained of violent pain,

and soon afterwards became alarmingly ill;—that he had been with him all night and administered injections without avail; nothing, except a little blood and mucus having been voided. Dr. Roots gave an unequivocal opinion that the symptoms arose from rupture of the bowel; and that a fatal issue was at hand.

The gentleman died in the course of the day. The body was examined and a lacerated perforation of the rectum discovered. Peritonitis has ensued, and castor oil, administered in the enemas, was seen in the cavity of the abdomen. There was no stricture.

The *resistance* to the passage of any instrument, so generally met with about or ten inches up the rectum, is assigned to different causes. Dr. O'Beirne, in accordance with his opinion, that "the rectum, so far from being open, is firmly contracted and closed;"* that, at its upper part, instruments pass as "if through a ring;"† and that this particular part of the intestine is in a very constant state of excitement and spasm;‡ concludes, "there scarcely can be a rational doubt, therefore, that it (the resistance) arises from a spasmotic state of the muscular coat of the intestine at this part;"§ while "White, Copeland, Shaw, Salmon, Calvert, Colles, agree in considering it to arise from the promontory or projecting ridge of the sacrum."|| Dr. John Houston gives a very different explanation. He ascribes the resistance to several valvular projections of the lining membrane of the rectum, which form a sort of spiral tract down its cavity, and indicate the necessity of employing a spiral shaped, instead of a straight bougie.¶

To which of these causes the resistance should be properly attributed, it would be out of my province to attempt to decide: but that there is resistance at the upper part of the rectum to the passage of an instrument seems agreed on all sides; and O'Beirne, in giving instructions for the introduction of a long elastic tube as far as the sigmoid flexure, recommends that, "instead of yielding to it, the pressure upwards must be gradually increased until such time as the resistance is completely overcome."** "Ideas of pain and danger (he says) naturally associate themselves with any proposal for forcing open an imperviously contracted intestine. But long and extensive experience of the practice enables me to assert, that what the patient suffers scarcely deserves the name of pain, and that the danger is altogether unfounded and imaginary. Indeed, as to the danger of the proceeding, the only fear we can well entertain is that of bursting through the walls of the intestines; but if we only reflect, for a moment, on the extreme violence required to rupture living and healthy muscular fibre—on the great muscularity of the rectum—on the fact that the rectum closely embraces

* New Views of the Process of Defecation, &c. By James O'Beirne. Dublin, 1833, p. 4.

† Ibid., p. 7.

‡ Ibid., p. 30.

§ Ibid., p. 63, note.

|| Ibid., 58, note.

¶ Ibid., p. 59, note.

** New Views of the Process of Defecation, &c. By James O'Beirne. Dublin, 1833, p. 58.

the instrument, and confines its course to the cavity of the bowel; and then consider how ill adapted the gum elastic tube is, in every respect, for being directed against or for piercing the sides of the intestine, we shall at once see the groundless nature of all such fears. Besides, the proposal neither implies nor sanctions the use of such extreme and brute force; and it will never be found necessary in any case.”*

To this sanguine rejection and too confident disregard of fear and danger in using force to overcome the resistance usually met with at eight or nine inches up the rectum, the case before narrated and witnessed by Dr. Roots affords a salutary caution. It is for this purpose, indeed, that I have been induced to touch upon a subject pertaining to surgery exclusively; and, therefore, not within my province.

In the *treatment of stricture* of any part of the alimentary canal, saline aperients, particularly the natural saline springs of Cheltenham, Leamington, and Norwood, will be found most valuable. They have the well-known property of rendering the excrementitious matter thin and watery, and thus fitting it, in an especial manner, to pass through any narrowing or contraction of the bowel. On this account they should be preferred before all others.

The efficacy of the natural saline springs was manifest in the case of a gentleman labouring under a schirrous stricture of the rectum, whom I attended, in conjunction with the late Dr. Armstrong and Mr. Wadd. While this patient remained in town we had the greatest difficulty in procuring evacuations by whatever means, and we consequently advised him to go to Cheltenham. No sooner had he commenced the use of the waters than the bowels acted most freely, the dejections being thin and watery: and so complete was the relief experienced, while he continued at Cheltenham, that the patient thought himself cured. In this hope he returned to town; but, the very next day, alvine difficulty was experienced. It was in vain that we again had recourse to every measure that suggested itself. Finally the bowels became obstructed; nothing whatever passed; and injections could not be thrown up. Sir Astley Cooper and Sir Benjamin Brodie were called in to consult on the expediency of attempting to penetrate the stricture, which was situated high up the rectum. These eminent surgeons, on account of the schirrous nature of the stricture, advised that no force should be used with the bougie, lest it should perforate the gut; parts in a state of schirrous disease being easily lacerated, but not susceptible of dilatation; an opinion based on experience, and fully borne out by the state of the diseased gut, as found after dissolution.

So great was the accumulation of seculent matter above the stricture, that the colon eventually ruptured, and death ensued in the course of twelve hours. On dissection, the tissues of the gut in

* Ibid., p. 65.

the immediate vicinity of the schirrus were found to be so lacera-ble, that, had any force been used with a bougie, the bowel must have been perforated inevitably.

In every case of stricture, or obstruction of the bowels, from organic disease, in which I have had the opportunity of examination after death, I have found the fecal matter accumulated above the stricture or obstruction *soft* invariably; while the small por-tions of fecal matter absolutely entangled in the stricture or diseased part were hard and friable. If in cases of stricture, as in ordinary constipation, the feculent matter became quickly hard and scyba-
lous, a fatal obstruction must at once and always be the consequence.

CHAPTER IX.

CUTANEOUS DISEASES, AS CONSEQUENCES OF HABITUAL CONSTIPATION.

Erysipelas—Erythema nodosum. Psoriasis. Impetigo. Acne.

It is not here offered as an opinion that the several kinds of ery-sipelas are consequences of habitual constipation: for erysipelas, both dynamic and adynamic—phlegmonoid and typhoid—are daily seen to depend on a state of constitution vitiated and corrupted by intemperance, or by the impure air of ill-ventilated wards or apart-ments, not to say by contagion.

The *erysipelas* to which I particularly allude, as a consequence of habitual constipation, is not of a very severe or dangerous de-scription. It may be situated on any part of the body, though it is generally on one side of the face. It is rather gradual in its forma-tion and progress, may often recur in the same patient, is seldom dangerous, and when erratic only so in a slight degree. It is less intensely red, less burning hot, less hard and resisting, less tender and painful than the phlegmonoid, is apt to be puffy or œdematosus, and corresponds, in some degree, with the erysipelas œdematodes of Willan and Bateman, though more, perhaps, with the bilious erysipelas of Désault, and the erythema of Cullen. Little or no fe-brile movement attends it, and the patients so affected are not con-fined to bed, or even to the room; the lower class of persons being able to attend at dispensaries, and as out patients at hospitals. Yet, on some occasions, the development of this erysipelas will be at-tended with more or less fever, bilious vomiting, and headache; being a decided attack of cephalalgia with gastro-hepatic irritation.

I regard this erysipelas as a consequence of habitual constipation, for the reason that such a state of the alimentary canal had long ex-isted, and induced the usual disorders of the digestive and other organs prior to the manifestation of the erysipelas; and for the

reason, also, that it declines, and is removed by an aperient course of medicine; and persists and recurs if this does not form a prominent part in the plan of treatment. Of this eyreipelas, "érysipèle bilieuse," Désault has given a very good though a very concise description, and speaks of its connection with "la mauvaise disposition des premières voies,"* as one of the principal symptoms which distinguishes it from the other kinds

CASE LXIV.—Erysipelas of the face cured by attention to the bowels.

While I was passing part of the winter of 1824-5 at Nice with an invalid, I was desired to see a lady who was subject to constant attacks of erysipelas, and whose health had been so much and so long impaired, that my advice was sought rather as a matter of satisfaction than with the expectation that benefit would accrue.

I found her suffering from one of these attacks of erysipelas. The inflammation occupied the left lip, cheek, ear, and temple, which parts were pale red, and puffy, doughy, or œdematosus, particularly the lower part of the cheek. The disease was not very painful nor tender, nor did it on this, or on any other former occasion, evince any tendency to metastasis to the brain. The appetite was entirely suspended; the tongue white and very much loaded; the face was sallow; the abdomen flatulent, and the dejections irregular, scanty, and very fetid, but not scybalous; her urine was red and loaded. She was rather corpulent; her flesh was now flabby, and she seldom left the house except to take a short drive. She informed me that her digestive organs had been disordered for many years, and her bowels difficult to manage, requiring laxative measures; but that aperients acted sometimes so violently as to distress and weaken her, which prevented her having recourse to them so often as she felt they were necessary. As a substitute, she was in the habit of using lavements of veal broth in quantities not exceeding four ounces as directed by a native practitioner.

The history of her case satisfied me that the colon was the part of the alimentary canal most in fault; and the nature of the dejections showed that its mucous membrane was not sound, there appearing to be a morbid and rather copious secretion from it, as forming part of the dejections.† My attention was therefore directed to procure the free evacuation of the large intestine, which, being difficult to accomplish by medicines taken into the stomach, was attempted by the use of lavements alone; not in the small and inefficient quantity in which they had heretofore been administered, but in quantity without limit; the attendant being instructed to throw up every morning as much as the colon would bear.

The quantity injected on each occasion was very large, often from three to four pints, which, having remained a few minutes,

* Œuvres Chirurgicales de P. J. Desault. Par Xav. Bichat. Paris, 1813, tome ii, p. 581.

† See some judicious and interesting observations on this subject by Dr. Holland in his Notes and Reflections, p. 171. London, 1839; and Select Medical Library for October, 1839.

was discharged, and with it a vast deal of flatus and of ochre-coloured frothy—as if fermenting—half liquid excrementitious matter, of a most offensive character: which however became less fetid and less abundant on every repetition of the copious lavement. The relief was immediate: the erysipelas subsided, the disorders of the digestive organs vanished, and she became a new person, to the surprise of the medical attendant; the improvement resulting entirely from the complete and regular evacuation of the large intestines.

Ill health had rendered this lady very nervous. The time appointed for my first visit was two o'clock, but I did not arrive till a few minutes after the hour, when I found that she was a good deal agitated, and that a handkerchief had been thrown over the timepiece to conceal the dial-plate: so much did the suspense of a few minutes affect her. It was a lesson never forgotten.

CASE LXV.—Erysipelas, gastro-hepatic irritation, and cerebral congestion. Constipation.

1830, February. Mrs. M. G——, age 30, the mother of seven children, was affected with an erysipelatous inflammation about the ear and extending up under the hair, attended with a troublesome burning heat. She was also affected with violent giddiness, with pain and weight across the forehead, and occasional dimness of sight, worse on attempting to read, when she would see double. She slept too soundly, and got up with great reluctance and unrefreshed. She was sick, had a bitter taste in the mouth with a foul tongue, especially in the morning; she flushed much in the face, and experienced heat of a burning dry character all over the body, amounting at night to feverishness. Her digestive organs had been long disordered, and her bowels much constipated, always requiring powerful medicine. Micturition was frequent. Menstruation regular.

By means of alteratives and saline aperients combined with alkalis the erysipelas subsided, and the general health was improved.

Remarks.—The subacute erysipelas, in this instance was merely an addition to the ordinary signs of disorders of the abdominal viscera and of congestion of the brain, the general attendants upon habitual constipation. Cases nearly of this description come under the observation of every person. They are adduced here not as illustrative of erysipelas itself, but to show that it is often one of the consequences of habitual constipation, and may be cured and its recurrence prevented by attention to the regular action of the bowels.

CASE LXVI.—Erysipelas. Aphthæ. Feces impacted in the rectum.

(Communicated by Mr. Morgan.)

“A lady, 80 years of age, was brought to London from Walthamstow to be under my care. She was affected with constipation of long standing, and had taken aperients for three months with

no other effect than the removal of some hard scybals. The nurse was directed to administer an enema, but found it impossible. I immediately discovered the mischief to be impaction of feces in the rectum, and, without further delay, proceeded to unload it. In this case the accumulation was very great, and difficult to remove, the fecal matter being arid, almost inodorous, and of light specific gravity.

"The old lady was very weak and depressed, and the constitution had sympathised greatly with the local affection; the mucous membrane of the mouth and fauces was aphthous all over, and an erythematous blush showed itself on the lips and nose. At length an extensive erysipelas spread over the head and face and attacked also the anus and nates; under which she sunk in about ten days."

Several elderly ladies known to me are liable to accumulations in the colon and rectum, and to attacks of erysipelas, less severe than in the case just narrated, but depending evidently and wholly on a constipated state of the bowels.

In agreeing with Désault and Abernethy that mild cases of erysipelas depend frequently and exclusively on the "mauvaise disposition des premières voies," viz. disorders of the digestive organs, I yet go further, and attribute not only the erysipelas, but also the disorders of the digestive organs themselves to habitual constipation, for the reason that the constipation was the earliest deviation from the natural functions of the alimentary canal, and therefore the first cause.

The *cutaneous eruptions* which I have observed to be more particularly connected with habitual constipation, are the erythema nodosum, psoriasis, impetigo, and acne.

In every case of the *erythema nodosum* that has occurred to me, constipation was a marked feature in the preceding state of the system, and the obviating this by proper aperients, the chief treatment. In young females this eruption will yield under the use of laxatives in ten or twelve days, as stated by Bateman, but in older persons it will prove more obstinate and persist for several weeks, which was the case in a female near fifty years of age, robust and corpulent, who had long been subject to great constipation, and in whom the erythema affected not only the leg but the thigh; an unusual circumstance.

In *Psoriasis* and *Impetigo* a cooling saline laxative, and alkaline treatment, calculated to regulate the bowels, is, at all times, a necessary part of the treatment; medicines, directed merely to the state of the stomach or of the blood, will not effect a cure, as a general rule. One case of *Psoriasis* of the lips resisted all remedial means, till a very active cathartic of jalap and calomel was administered, when it yielded immediately.

Although *Acne* is known to occur particularly in certain temperaments and constitutions, it is nevertheless influenced very materially by the state of the bowels, habitual constipation aggravating the inflammation around the base of the little tumours, and

increasing their size, so that they disfigure greatly the face and uncovered parts of the shoulders; and not only is this result produced, but a blotchy redness and heat will occupy the spaces intervening between the acne tumours, and give the face a most unpleasant and unfortunate aspect; at times subjecting the individuals affected to the suspicion of syphilitic taint, or of intemperance; when, instead of either, habitual constipation may be the true source. To this same source also I have in a former chapter already ascribed the *Prurigo Podicis et Pudendi Muliebris.*

CHAPTER X.

OF THE CAUSES OF HABITUAL CONSTIPATION.

Inattention to the calls of Nature. The want of proper conveniences. Civilized life. Sedentary habits and occupations. Literary pursuits. Travelling. Pathological and mechanical causes.

Inattention to the calls of Nature.—Of all the causes which originate and establish habitual constipation, there is none certainly so general as inattention to the calls of nature.

We have seen, in a former chapter, that the rectum, in common with the other parts of the intestinal canal, is endowed not merely with organic sensibility from the ganglionic system of nerves, of which sensibility we are not conscious, but also with animal sensibility from the cerebro-spinal system of nerves, of which sensibility we are conscious. This sensibility with consciousness is excited when the excrementitious residue arrives at the rectum, and thus we are admonished of the period when it should be expelled: an admonition attended to at all times by the brute creation, and by children in whom the natural functions are allowed to go on unrestrained: but when puberty approaches, the calls of nature are not only ill obeyed, but even set aside by every trivial circumstance. A misplaced sense of delicacy, an absolute disregard of the calls of nature, some engagement from which persons do not at the moment liberate themselves, the inconsiderate or ill-planned situation of the closet, or of the out-of-door cabinet d'aisance, all conspire to counteract the operations of nature and to originate constipation.

How often does it happen that ladies, feeling it not quite convenient to retire to the closet at the moment they experience an admonition, defer it till a more favourable opportunity; but this opportunity having arrived their efforts are powerless; the bowel will not then act; and disappointment and discomfort ensue. Delicacy on their part is carried to a most pernicious extent in England, while on the other side of the channel the reverse obtains; happily, perhaps, as regards health and ease. An English gentleman, while in France, having one day occasion to go to the cabinet

d'aisance, found it occupied by a lady ; the door not being bolted. Embarrassed, he retreated to his apartment ; where in a few minutes, another lady of the family came to him, saying, " Monsieur ! la place est libre !" The Englishman blushed for an instant, but, quickly recovering, said to himself, en allant, " Eh bien ! If Madame feels no delicacy in this matter, why should I ?"

It should be remembered that the exoneration of the bowels is a natural and necessary function, without which health cannot be enjoyed or preserved, and some resolution therefore should be exercised in order to promote this object. Besides, if we regard it in another point of view, and reflect for an instant that by neglecting the evacuation of the lower bowel we permit foul and filthy matter to be retained within the body—which nature has ordained should pass away—we feel another and strong incentive to encourage and secure the habit of daily evacuation. Delicacy in this particular should be discountenanced, and trivial or even pressing engagements should be suspended in order to obey this injunction of nature.

I am afraid that indolence and an absolute disregard of or even resistance to the calls of nature are not the least frequent causes of habitual constipation ; feelings which have been yielded to perhaps without considering the penalty they must in the end inflict. How many persons are there who do not obey the calls of nature unless urged by an imperative necessity which they cannot resist. Little do such persons know the misery and ill health they entail upon themselves when they allow such habits to grow upon them : and surely when they are apprised of the evil consequences that must accrue they will make an effort to avert them by scrupulous attention to the regular exoneration of the bowels.

Constipation having once commenced, soon becomes habitual ; and does not attract attention till some pressing consequence arises, which having been removed or relieved the same state of constipation is allowed to recur and to persist.

The want of proper conveniences is most severely felt by society at large, though now less unquestionably than formerly.

The situation of closets is often ill-judged. If of ready access, too exposed : if remote, inconvenient. In number too they are apt to be sadly deficient : one, perhaps, for a whole family, and this most unfortunately placed. Then, again, the out-of-door cabinet d'aisance is sometimes situated at a distance from the house, and the access to it often runs in front of the sitting-room windows ; the locality itself being often cold, damp, and repulsive.

One cannot help wondering to see so much pains bestowed on the arrangement and decoration of a house while a disregard is manifested with respect to the closets and cabinets d'aisance, upon which conveniences, nevertheless, the health and comfort of a family and their visitors depend.

Is there any one who has not at times found the pleasures of a visit neutralized by difficulty in attending to the bowels ? How

often do both sexes suffer from unusual constipation when from home, especially while travelling abroad, for want of proper conveniences and opportunities; sufferings which mar all their anticipated enjoyments. Travellers on the Continent know well the miseries they have encountered in this respect. But we need not leave our own shores to experience annoyances like these; for in Britain itself there are towns in which a great part of the houses have not only insufficient conveniences, but absolutely none at all.

In the construction of houses, too much attention cannot be given in determining the situations in which the water-closets are to be placed, in order that the access may be easy and the egress private: but above all let the number be sufficient. In every house, one at least should be appropriated to each sex: and one should be attached to the visitors' apartment exclusively. Persons go to a vast expense in fitting up apartments and providing entertainment for their friends, but they neglect the one thing necessary to their comfort and enjoyment.

How easy a matter is it in the country,—where the construction of water-closets in-doors is more difficult and less necessary than in towns,—to erect two, instead of one, out-of-door cabinets d'aisance in spots convenient and approachable; an object attainable by families in very moderate circumstances.

Civilized Life.—Much as we have to rejoice at the advance of civilization, the blessings which spring from it are not without alloy. The congregation of human beings and of their habitations in towns involves numberless evils, of which mental excitement and bodily inactivity are not the least pressing. The mind is not merely employed but excited, while the limbs are scarcely used. Ladies may take a formal walk once in the day; twice is a rare occurrence; but even this does not afford salutary exercise, the legs only being engaged, the arms “hanging idly down.” The higher classes use scarcely any muscular exertion, the use of the limbs being superseded by the carriage. Then in young ladies the accomplishments, which all endeavour to attain, require constant mental, to the neglect of bodily, exertion; and, education concluded, the greater part of the day is passed in sedentary occupation or amusement. Custom so enslaves mankind that ladies are, as it were, prisoners in the house; they cannot walk in the streets; and few, comparatively, are able to enjoy the advantages of air and exercise in our parks and squares. Even in provincial towns the gardens attached to dwelling-houses are so confined that they offer little temptation or means of exercise; and this general want of muscular action encourages habitual constipation.

The anxiety of mind too arising out of an advanced state of civilization has a great influence on the functions of the alimentary canal; not merely in causing indigestion, but in rendering torpid the peristaltic action of the intestines. Look at the multitude of anxious faces one meets daily in the streets. Think for a moment on the contentions, competitions, and responsibilities that men have

to encounter, and we shall not be surprised at the load of anxiety that oppresses the greater part. This anxiety depresses the energy of the nervous system and of all the organic functions. The powers of the stomach become languid and digestion is imperfect; the liver becomes sluggish and the supply of bile is defective; and the peristaltic action of the intestinal canal grows slow and retards the excretions: and thus do affections of the mind produce languor, indigestion, constipated bowels, and all their consequences.

In proof, we find that persons, while anxiously engaged in their business or profession, find it difficult or impossible to regulate their bowels; yet, immediately they emancipate themselves by an excursion into the country, the mind recovers its cheerfulness, the spirits their elasticity, and the bowels their normal function.

Sedentary Habits and Occupations.—The sedentary habits of females in general are undoubtedly one cause of the habitual constipation under which they labour. Looking at the inactive life led by the majority of those who are above the station of domestics, one feels not only no surprise that the bodily functions should be ill performed, but one wonders that the consequences are not more serious.

The abeyance in which muscular action and energy are kept by sedentary habits and occupations in either sex, is inconsistent with the vigorous circulation of the blood in the extremities; muscular action being one of the chief agents in the venous circulation. The effect is a languid circulation in parts remote from, and a congestion of blood in parts near to, the centre of the circulation; and hence cerebral and abdominal congestion; augmented, moreover, by the irritation arising from the condition of constipation itself, as has been already explained. The want of bodily exercise lessens the demand for food, weakens the digestion, and dyspepsia is added to the train of evils.

There is no class of persons more deserving our commiseration than young women employed as seamstresses, milliners, and the like. The poor girls sit and ply the needle during fourteen or fifteen hours of every day in the whole week, with scarcely intermission enough to take their meals. I am credibly informed that, in some establishments in this metropolis, these young persons breakfast at seven o'clock, work unremittingly till one, when they dine; and again work till ten and eleven o'clock at night: the time set apart for all their meals not amounting to *one hour*. Many do not leave the house from Monday morning to Saturday night. So exhausted are they at the close of their daily labours, that I hear they can scarcely "drag themselves up stairs to bed:" the truth of all which is too plainly told by the pale sallow faces, palpitating hearts, and swollen ankles which they exhibit.

With employment so unremitting exercise during the six working days of the week is impracticable; and not less impracticable is attention to the natural functions of the body. Can we picture to ourselves the misery of young persons doomed to pass that pe-

riod of their lives in one wearying, unvarying sedentary position,* which, under happier circumstances, should be full of cheerful variety, and exuberant in joyous activity: and all this to earn a pittance barely sufficient to furnish them with apparel and the common necessities of life.

Did the philanthropists, of whom this country can above all others boast, know the hardships these young girls are destined to suffer, some efforts would, I am sure, be made to improve their condition by lessening the number of hours they are now obliged to work, and by affording them the respite at meal times which all our artizans enjoy.

The want of muscular exercise in the inmates of boarding-schools, and the weakness of frame and of health which is thereby induced, is powerfully set forth by Dr. Forbes. On visiting a young patient

* Any fixed sitting, or upright posture, is incompatible with the symmetrical growth of the body in young persons. It is lamentable to see the majority of young ladies deformed by a *lateral curvature of the spine*, not depending on weakness of constitution, or on original delicacy of frame, but arising purely from their having been compelled to sit upright, under the erroneous notion of preventing the deformity which this very system produces.

The spine in young persons requires a perpetual change of position, in order that its development may be straight and perfect. If this change of position, which all young persons naturally seek, is not allowed; and if they are desired "to sit upright," "to hold themselves up," the result will be, that the weight of the head and upper extremities either compresses the intervertebral substance, and causes a short, stiff, straight back, devoid of all elastic and graceful motion; or causes the spine to give way and bend to one side or to the other; thus producing the lateral curvature so general in young ladies.

To remedy this deformity, as parents and governesses suppose, those abominable high chairs, with tall straight backs, are called into requisition, and the young ladies are urged more and more strenuously to hold themselves erect, a system which aggravates and renders permanent the very deformity they have been striving and hoping to remove. No greater error ever prevailed than the notion that the curved spine is to be prevented or cured by the upright position. It is this very position, rigidly maintained, which causes the curvature, and deforms so many frames of body cast by nature in a beautiful and perfect mould.

Why is it that girls in the lowest class of life are well grown, when ladies are the reverse? Why is it that the housemaids have straight spines, while their young mistresses are deformed? Why is it that boys are seldom seen with, while girls are seldom seen without, lateral curvature of the spine? Precisely because the motions and positions of boys are unrestrained, and the girls are controlled and fixed!

Young ladies should be allowed to relieve the pliant spine from the weight of the head and upper extremities, as nature prompts, by frequent change of position, by seeking support against the back of a chair, by reclining on a sofa, sometimes even by reposing in the entire horizontal position. Not only do these means prevent deformity, but, if employed before the growth of the body is completed, they will remove any deformity which may have taken place. Muscular exercise of the upper extremities in an upward direction, as by contrivances suspended from the ceiling, is an excellent and essential auxiliary means, I have known many instances of lateral curvature of the spine quickly removed by the simple measures recommended; namely, by muscular exercise, followed by the horizontal position for a short period every day.

The tall, straight-backed chairs usually placed at the piano should all be burnt, and stiff, long stays discarded, as inimicable to and incompatible with an elegant frame and graceful carriage.

at a boarding-school in a large town, he learnt on close and accurate inquiry, that there was not one of the girls who had been at the school two years that was not more or less crooked :* an astounding fact!

For some very judicious observations on injuries of the spine from continuing the same attitude, from sedentary occupations, &c., I would refer the reader to the fourth chapter of the work of Andrew Combe, M.D., "On Physiology applied to the Preservation of Health."

Literary Pursuits—In addition to the determination of blood to the brain which is produced by continued mental occupation, the sedentary habits of literary persons induce the congestion of the abdominal viscera, the disorders of the digestive organs, and the constipation of the bowels incident to a life of inactivity.

While blood is determined in an abnormal quantity to the viscera, the quantity and circulation in the extremities is so languid and deficient, that the temperature falls much below the natural standard, sufficient animal heat not being developed in parts so distant from the centre of the circulation. The consequence is much suffering from cold feet, with difficulty in keeping them warm even by artificial means.

The effects of the congestion and constipation fall not unfrequently on the liver more than on the other viscera, disordering the secretion of bile, causing it to enter into the blood and to produce the sallow face and gloomy hypochondriac countenance so conspicuous in those who "cupidi literatim sunt." In some of these persons, lawyers and schoolmasters particularly, the effects of mental labour and constipation fall chiefly on the brain, and lead to cerebral congestion and apoplectic seizures.

CASE LXVII.—Apoplectic congestion. Constipation.

Mr. R—, age 21, an usher in a school, tall, thin, sallow, very studious and sedentary, subject to cold feet, and of a constipated habit of body for several years, was affected on the 10th of December, 1832, with very great heaviness of the head attended with pain from the occiput to the forehead, and dimness of sight which lasted five days. Three weeks later he was seized, while walking in the evening, with giddiness and loss of memory and numbness of the left side. He staggered as he went home, and, when he had reached his room, fell down, but he rallied the same evening, walked out again and recovered.

In the course of a fortnight he was attacked while in bed with a pain in the back of the head in the same spot as on the first occasion. He nevertheless got up as usual, but after breakfast felt confused and giddy. In the evening he called upon me for advice. He looked stupid and heavy, was dull, slow of speech, and forgetful, so that it was with difficulty he explained the object of his visit. His eyes were suffused, one side of the face was slightly paralyzed,

* See Cyclopædia of Practical Medicine, vol. i. p. 657, note by the editor, Dr. Forbes.

the corresponding side of the body weak, and his walk unsteady. By means of the loss of blood, a blister, and some purgatives, he was relieved immediately from the urgent symptoms. Afterwards the bowels were regulated by proper aperients combined with alternatives, but it was many weeks before the brain entirely recovered from the shock.

CASE LXVIII.—Cerebral congestion. Constipation.

A young lawyer sought my advice in July, 1838, for the following complaints—great heaviness of the head, sleepiness, and impairment of memory. I observed that his face was slightly paralyzed on the right side, and the corresponding eyeball rather more exposed and prominent. His pulse was only 64, the stroke slow. His bowels had long been habitually and obstinately confined : but his appetite was good. He had been very sedentary, reading much, and a close inmate of his chambers. He had been affected with these symptoms for several months, and for some time past had been under the care of a homœopathist, who had relied on infinitesimal doses of various drugs.

It was self-evident that a very serious congestion of the brain existed and had existed many weeks, and that the patient was in danger of cerebral haemorrhage and its consequences. I therefore at once directed *blood to be abstracted by cupping*, and his bowels to be kept freely open by *senna*, aided by *alterative doses of calomel and rhubarb*.

By these means the heaviness of the head and the sleepiness were materially diminished ; and after two or three weeks the expression of the face was nearly free from paralysis ; yet recovery was imperfect ; the pulse remained slow and unsrequent, the bowels continued very obstinate, and cerebral symptoms recurred from time to time while he was under my care ; proving that the congestion, which had been so long allowed to exist, had in all probability affected the organization of the brain ; if not irreparably, at all events to a degree that required long abstinence from mental occupation, strict diet, early habits, and well-regulated bowels to give a fair chance of recovery.

Travelling has generally the effect of discouraging the action of the bowels ; and on some occasions to the extent of producing great inconvenience by constipation. I have known ladies become very ill from this cause. A confined state of the bowels always increases the feverish heat which arises from travelling in a close carriage. Persons proposing to make long journeys would consult their comfort by providing themselves with means to obviate constipation, or the pleasures even of their excursion may be very much broken in upon. The same remarks apply to voyages by sea.

Constipation of greater or less duration, and even obstruction of the bowels, may be produced by a variety of causes, the consideration of which—although they induce, in the majority of instances an incidental rather than an habitual constipation—cannot with propriety be overlooked or omitted in this chapter.

These causes may be of a *pathological* or of a *mechanical character*.

The *pathological* may depend on inflammation, spasm, or organic disease of the alimentary canal or neighbouring viscera; as enteritis, tephlo-enteritis, or inflammation of the cæcum; disease of the pylorus, cæcum, or appendix vermisformis; enteritic spasm; biliary calculus; renal calculus; and colica a plumbo; which causes require no other notice than a simple enumeration, inasmuch as they are incidental; and the constipation standing in the relation of a symptom to the diseases themselves is, therefore, always taken into consideration.

Laxity or debility of the muscular fibre of the intestinal canal is by many regarded as a cause of habitual constipation; in which opinion my own experience does not allow me to concur. The grounds on which this opinion has been formed, are the general laxity or debility of the individuals affected, and the thin pale state of the enteritic muscular tunic as seen on dissection.

In tracing, however, the history of these cases, it will appear that the subjects of them had for a very long period been affected with habitual constipation,—that they had eventually died exhausted and emaciated,—and that the lax and pale muscular fibre of the intestines depended, in part, on the general impaired state of the health, and in part on distention from the evolution and presence of gas, as well as from the inaction which attends constipation—that, indeed, it was a result and effect rather than a cause.

Deficiency of bile, from obstruction in the biliary ducts, from whatever cause, deprives the alimentary canal of its natural stimulus and renders the peristaltic action sluggish.

So *diseases of the brain*, by impairing the powers of innervation, are causes of enteritic torpidity; often very unmanageable.

Any abnormal or pathological increase of the secretion of an organ may so diminish the fluid parts of the residual alimentary matter, and of the fluids naturally poured into the intestinal canal, as to be a continued source of constipation. This is exemplified in the diabetes mellitus; in which, while there is an inordinate and astonishing increase in the secretion of urine, there is at the same time an almost entire suspension of the secretions proper to the alimentary canal; the consequences of which are, that a dry, hard, and friable condition of the feces and a very costive state of the bowels are attendant symptoms of the disease.

The mechanical causes may depend—on diminution of the natural calibre of some part of the intestinal canal from disease of the bowel itself, as stricture; or organized bands stretching across the channel of the gut:—on accidental adhesion, displacement, or twist of the bowel:—on diverticula:—or on the pressure of a tumour.

Stricture has in a former chapter been regarded as an occasional consequence of habitual constipation, and as resulting from a diseased action excited by the unduly retained feculent matter. In now regarding it as a cause, I allude to those cases in which the

bowels, habitually regular, have become irregular and obstinate in consequence of the formation of a stricture, the stricture having proceeded from a depraved condition of the constitution, rather than from any local exciting cause, as constipation.

Organized bands stretching across the channel of the bowel are more generally met with in the rectum, and are spoken of by authors on diseases of that gut. I have myself met with them also in the cæcum in one instance.* They constitute a very curious product of disease; and, forming an irregular coarse network across the channel of the bowel, prove a formidable source of constipation.

At first sight, the origin and formation of these organized bands would appear difficult of explanation; but I agree with O'Beirne† in attributing them to an intense inflammation of the mucous membrane of the part, with effusion of fibrin, which, in the first place, agglutinates the opposite mucous surfaces to each other, then becomes quickly organized, and obliterates the channel of the bowel. This obliteration would be complete and permanent, but that before the organization of the effused fibrin can be so far advanced as to give strength to the adhesion, the contents of the intestine above are urged onwards, and break up the adhesion in a number of points and directions, thus forming and leaving the various filaments, which, when afterwards completely organized, constitute the permanent bands of which we are speaking.

The network so formed across the channel of the bowel proves a serious source of constipation; and, if situated in a part beyond the reach of an operation, as in the cæcum, it will eventually cause an entire obstruction, and destroy life. This was the order of events in the cæcum case alluded to; the subject of which had suffered from a most untractable and obstinate constipation for several years previous to the occurrence of the complete obstruction which proved fatal.

When this network of organized bands is situated in the rectum it may be broken up, and the bands divided by an operation which then removes the source of the constipation; and the patient is relieved from his distress and danger.

Adhesions, accidentally formed between two portions of intestine, or between the intestine and some part of the abdominal viscera, are occasionally met with, which may have existed for an indefinite time without interfering with the action of the alimentary canal; and yet from some slight cause affecting this adhesion difficulty shall arise; and obstruction and inflammation ensue, as in strangled hernia. Cases of this kind are related by Dr. Abercrombie.‡

One is surprised to find on dissection how slight an adhesion will at times obstruct the action of the bowels to a fatal extent. In a

* This case is detailed in my first Memoir on the Cæcum and Appendix in the Transactions of the Medical and Chirurgical Society, vol. xx. p. 213.

† Op. cit. p. 43.

‡ Diseases of the Stomach, Intestinal Canal, &c. Edinburgh, 1829, p. 111, *et seq.*

gentleman, who died with all the symptoms of obstruction after he had undergone the operation for strangulated hernia, it was found that the difficulty arose from an agglutination of the contiguous peritoneal surfaces of the convolution of the ileon which had formed the hernia, but had been entirely liberated from the strangulation, and returned into the abdomen. This agglutination, though sufficient to counteract the peristaltic function of the gut, was nevertheless separated by the slightest force. The judicious precautions which surgeons take, after having divided the stricture, to draw out the gut which has been strangulated, in order to ascertain that no adhesions exist between it and the neck of the sac, may be advantageously extended—as this case shows—to the inner contiguous surfaces as well as to the circumference of the strangulated convolution.

The Diverticulum.—A diverticulum is an abnormal process from some portion of the intestinal canal, generally the jejunum or ileon, of from three to five inches in length, about the size of the middle finger, communicating openly with the bowel, but having its distal extremity closed, forming indeed a *cul-de-sac*, very similar to the appendix vermiciformis, except that it is larger and has no mesentery.

In the examination of bodies, I have met with these diverticula several times. In one case the diverticulum was the cause of death, as follows:—

It happened in a labouring man at least 50 years of age, whose health up to the attack of which I am now speaking, had been always good and his bowels free from pain or difficulty. When I visited him he was seriously ill in bed, having an aching obtuse pain fixed about the navel, with tenderness and some tumefaction of the abdomen, vomiting, though not frequent and obstinate constipation, with however no high degree of fever, and not so great an anxiety in the countenance as is seen in idiopathic enteritis. These symptoms had formed rather gradually, he having been ill already five days, and I was of opinion that some accidental cause, as an internal strangulation, existed. On questioning him as to any cause of obstruction, he recollects only one circumstance that bore on the subject; which was, that he had eaten hastily, a few days before the attack, some hard boiled beef.

The symptoms resisted all the means which the character of the case suggested, and the patient died at the end of ten days.

The body was examined, and a diverticulum, of the size already described, proceeding from the upper portion of the ileon situated in the middle of the abdomen, was discovered. But extending from its distal, or blind extremity, was a ligament formed by the extension of its peritoneal tunic, which ligament proceeded and was fixed to the neighbouring mesentery, and underneath it a portion of the small intestine, having become accidentally strangulated, obstructed the channel of the bowel and produced the fatal symptoms above stated.

Displacement of the Bowel in the form of an intussusception, or

of an internal or external strangulated hernia, becomes at once a cause of constipation and obstruction.

Twist of the Bowel.—A sudden twist of the bowel has been known to occur many times, and to produce a fatal obstruction. The portion of intestine most liable to this accident is the sigmoid flexure of the colon, on account of the loose arrangement of its meso-colon. Sir Astley Cooper has favoured me with the following example:—

CASE LXIX.—Twist of the sigmoid flexure of the colon. Obstruction: fatal.

“A person, near 30 years of age, who had made several voyages to the East Indies, was drinking in a public-house in Lower Thames Street, and quarrelled with one of his companions, who threw him down and kicked him upon the abdomen. He rose, and complained of being excessively hurt, applying, at the same time, his hand to the region of the sigmoid flexure as the seat of his suffering.

“On the following day the abdomen was swollen, and although he had an inclination to go to stool, it was ineffectual, and he sent for Dr. Lettsom. Day after day the abdomen increased; and, notwithstanding the most active purgatives and injections were administered, no relief could be obtained from the bowels. Sir Astley Cooper was now sent for to meet Dr. Lettsom; and found the abdomen tympanitic and distended to an enormous size, with constant eructations and vomiting of whatever he took. The tobacco enema was recommended, which had its full effect in producing relaxation and depression, yet failed to give relief to the bowels. Sir Astley, therefore, at the next consultation, advised that the abdomen should be punctured. The operation was performed immediately by means of a small trocar—for the patient was almost suffocated by the opposition which the distended abdomen offered to the descent of the diaphragm—and an immense quantity of gas escaped through the canula. The relief experienced was for the moment complete: the patient expressing himself perfectly relieved in his breathing. The abdomen, however, soon began to swell again, and in forty-eight hours was as much distended and produced as great dyspnoea as before the operation; and seeing that no permanent relief had been derived, Sir Astley did not consider himself justified in repeating the operation. In twenty-four hours he died, having lived altogether eight days from the injury.

Necrotomy.—“On opening the abdomen, the intestines protruded instantly and with force. It was the sigmoid flexure of the colon in which the distension was greatest, and this was the intestine which had been penetrated by the trocar. On further examination, the meso-colon was found to be exceedingly relaxed, and the sigmoid flexure itself twisted one turn and a half upon its own axis; and so complete was the obstruction, that not a particle of air would pass until it was replaced.

“If the exact situation of this had been known, Sir Astley is of

opinion that an incision into the abdomen would have enabled the surgeon to untwist and replace the gut easily."

An explanation of the manner in which a twist of the sigmoid flexure of the colon may take place has been attempted by O'Beirne, and is far from improbable. He says, that if the descending colon should happen, from any cause, to discharge into the sigmoid flexure a greater quantity of matter in a more rapid and sudden manner than usual, the latter, by making a sharp and nearly complete turn upon its own axis, may become so twisted as to cause a very perfect and formidable species of obstruction.* This explanation cannot, of course, apply to those cases which arise from accident.

Several examples of this twist of the sigmoid flexure have been recorded. Dr. Abercombie relates one in which a very slight twist so interfered with the function of the intestine as to produce a fatal ileus. The point of the canal affected by this twist was at the termination of the sigmoid flexure, in the rectum.†

Tumours in the Abdomen and Pelvis sometimes interfere with the action of the bowels, and cause constipation chiefly by pressure, arising from their great bulk or from their peculiar situation. This inconvenience is most frequent from tumours situated in the pelvis, partly because they occur here oftener than in the abdomen, and partly because of the resistance and counter-pressure of the bony structure. Yet seeing how common tumours of the uterus and appendages are (independent of utero-gestation), one is rather surprised that obstinate constipation is not a more general consequence of them. The fibrous tumours of the uterus are much more apt, than tumours of the ovaries, to interfere with the action of the neighbouring bowel. I have under my care at this time a person affected with the hard fibrous tumour of the uterus, in whom it is a matter of great difficulty to obviate the constipation produced by pressure on the gut.

Tumours of the abdomen, glandular especially, sometimes so obstruct the channel of the bowel as to excite, from time to time, not only constipation but inflammation. Two cases of this description, in males, have occurred in my practice within the last four years. In one, the bowels were rendered so habitually and obstinately constipated that strong and stimulating purgatives were always required to obtain evacuations; and this gentleman was attacked at intervals with severe local pain, vomiting, obstruction, and febrile movement; viz. with inflammation of the part. By treatment, persisted in for many months, this tumour was happily dissipated; since which all alvine difficulty has ceased.

In the other case, the tumour went on enlarging, and produced, from time to time, obstruction and inflammation, which placed the patient's life in jeopardy on each occasion. Eventually it attained an amazing bulk, rendering the abdomen very protuberant, while

* Op. cit. p. 42.

† Diseases of the Stomach, Intestinal Canal, &c. Edinburgh, 1828, p. 115.

the rest of the body wasted away. Death ensued; and by examination the tumour was found to consist of a schirro-fungoid growth of the lumbar glands; and must have weighed from forty to fifty pounds.

Pregnancy must also be regarded as an occasional cause of constipation.

The mechanical causes of constipation may depend on foreign substances taken by the mouth, as magnesia; chalk; sulphur; cubeb; white mustard seed; pills; sesquioxide of iron; adulterated bread; fruit-stones, and other substances.

Magnesia.—Several instances have occurred in which magnesia taken daily in large doses, has accumulated in the alimentary canal to a great amount, in the form of balls, or in a single mass, producing irritation, obstruction, tumour, &c. The parts of the alimentary canal where the accumulation takes place, are the cæcum, the sigmoid flexure of the colon, or the rectum. Sir Benjamin Brodie mentioned a case to me in which magnesia had collected in balls in the rectum and produced a high degree of irritation, which ceased when the balls of magnesia came away. A very interesting case is recorded by Mr. Everard Brande.*

"A lady was recommended to take magnesia, in consequence of some very severe nephritic attacks, accompanied with the passage of gravel. She was desired to take a tea-spoonful every night: and Henry's calcined magnesia was preferred, as that always operated upon the bowels and 'carried itself off,' which other magnesia did not, but, on the contrary, felt heavy and uneasy in the stomach. The dose was gradually increased to two tea-spoonfuls, in order to produce effect upon the bowels, which this quantity never failed to do; the symptoms for which it was ordered were soon removed, but the plan was persevered in for two years and a half, with little intermission or irregularity, so that, as the average weight of a tea-spoonful is at least 40 grains and the average dose was a tea-spoonful and a half, it may be presumed that she took during the above period between nine and ten pounds troy.

"In the course of last autumn she suffered severely by a miscarriage, and shortly afterwards by an attack of biliary calculus; subsequent to which she became sensible of a tenderness in the left side just above the groin, connected with a deep-seated tumour, obscurely to be felt upon pressure, and subject to attacks of constipation, with painful spasmodic action of the bowels, tenesmus, and a highly irritable state of the stomach; these attacks recurred every two or three weeks, varying in violence, but requiring the use of active remedies; during one of them, about the middle of last March (1816), a large quantity of sand was voided by the rectum, attended with a peculiar acute and distressing pain in the seat of the tumour above-mentioned. This was lost. The following day, however, the same kind of evacuation happened again, and to the same extent, which being saved

* The Journal of Science and the Arts. Edited at the Royal Institution of Great Britain, vol. i., p. 297.

and measured, was found to amount to two pints. Another attack took place upon the 5th of April, when several irregular lumps of a soft light brown substance were voided, having the appearance of a large mass broken down, and when dry extremely friable: a part of each of these two last were subjected to a careful analysis, and found to consist entirely of sub-carbonate of magnesia concreted by the mucus of the bowels, in the proportion of about 40 per cent.

"The use of magnesia was now given up, and that of an active purgative medicine enjoined, with some other necessary directions, and there is every appearance of returning health, although some slight attacks have recurred, and small portions of the same concretion still occasionally come away.

"An instance in many respects resembling this occurred in the practice of some gentleman of eminence in this town, in which not only large quantities of a concretion of a similar description were avoided, but upon examination after death, which took place six months after any magnesia had been taken, a collection, supposed to be from four to six pounds, was found imbedded in the head of the colon, which was of course much distended. Some notes which were made of this case are I fear not to be found."

A third case occurred in the practice of Mr. Tupper, who has kindly supplied me with what particulars his memory and notes afford.

"The subject of this case was a nobleman, corpulent, very dyspeptic, of constipated habit, and affected with disease of the prostate gland, on account of which the catheter had been used for a long period. *His lordship had been in the habit of taking daily for many years a dessert or table spoonful of Magnesia.* For some time before he died his bowels became more than usually constipated, and he suffered severely from spasmodic pains. The evacuations which passed were soft and offensive. Strong purgatives were ineffectual; and, enemas having been administered in the ordinary manner with no better success, a long tube was passed up the rectum and injections thrown into the colon. By this means, aided also by aperients given by the mouth, evacuations were procured in which were quantities of magnesia. The same plan was persevered in, and magnesia to the amount of at least one or two pounds was brought away. The patient was at no time affected with vomiting, nor was any tumour perceptible in the abdomen. After a few weeks the patient died, having become greatly emaciated from protracted disease and suffering.

Necrotomy.—"The bladder was sound, except that its muscular coat was thickened. The prostate gland was enlarged and schirrous. One portion of the gland, of a softer texture than the rest, projected into the cavity of the bladder from behind and above the beginning of the urethra; which projection, upon every attempt to evacuate the urine, must have been forced over the mouth of the urethra so as completely to block up the passage, and thus to act as a perfect valve. The urethra was free from stricture. The rectum, to the extent of five inches, was in a schirrous state; its coats being at

least three-quarters of an inch thick for the greatest part of this space. The diseased prostate gland was so connected with part of the diseased rectum that no line of separation, or even distinction between them, appeared upon an incision being made through both. On the exterior of the schirrous portion of the rectum, extending completely round it from its union with the prostate gland, was a firm schirrous mass, inseparably connected both with the gland and the gut; the thickness of which between the rectum and the sacrum exceeded an inch and three-quarters.

"From the diseased state of the rectum, and from the schirrous mass which surrounded it, the cavity of the gut had become so contracted as barely to admit a tube of less than one-third of an inch in diameter, and as all muscular action and even muscular structure was lost in the disease, it became necessary to introduce daily—for some weeks before his lordship's death—a tube of this size beyond the stricture, in order to procure evacuations."

Chalk, like magnesia, is apt to accumulate and concrete. Dr. Good speaks of its aptitude to form balls or calculi in some part of the intestinal canal when used in large quantities and long persevered in. These balls may produce a very troublesome obstruction or colic, of which Dr. Good knew various instances: some were attended with alarming symptoms before the balls were dejected. Many of the balls were evacuated in masses of more than an ounce weight each.*

Sulphur also has been found to accumulate in the alimentary canal. Dr. Donald Monro† relates a case which happened in his own practice.

A lady took daily for two or three weeks a spoonful of *flowers of sulphur*. Some months afterwards, she was affected with uneasiness of the bowels for which she took five or six warm baths and then a dose of physic, after which she passed by stool a large quantity of whitish heavy stuff, which, on being thrown into hot water, washed, and examined, was found to be sulphur. She told the doctor, that she had not taken a grain of sulphur for five months before. She continued to pass sulphur for five or six days.

*Cubeb*s, when given in large repeated doses in gonorrhœa, has been found, on dissection, accumulated in great quantity in the colon by Dr. Paris, and has been found also, by the same physician, lodging and producing great irritation in the rectum.

White Mustard Seed has been known to accumulate in the intestinal canal. Mr. Ballar informs me that an old gentleman who had been in the habit of taking mustard seed daily for several weeks, was suddenly seized with pains in the bowels. An active purgative was prescribed, and brought away a large quantity of the seed in the form of hard and compact balls to the entire relief of the patient.

* *The Study of Medicine*: by John Mason Good, M. D. Fourth Edition: by Samuel Cooper, vol. i. p. 122.

† *A Treatise on Medical and Pharmaceutical Chemistry, and the Materia Medica*: by Donald Monro, M. D. London, 1788, vol. ii. p. 259.

Pills.—The number of aperient pills which many persons are in the habit of taking is very great. Some quack pills are taken to the extent of from ten to thirty in the course of the day. Instead of passing away with the action of the bowels, which they have been taken to accelerate, they sometimes stick together and lodge in the colon or rectum, producing great irritation or obstruction. Dr. Paris was attending a patient affected with torments of the bowels which he could not account for, till, after the action of a brisk purgative, a quantity of pills were voided, many sticking together and forming masses of greater or less size.

In Case LV., already related at p. 97, pills of soap and rhubarb had amassed to such a degree as to form a large compact substance in the rectum, which produced obstruction and all the symptoms of strangulated hernia.

The Sesquioxide of Iron, given in very large doses, is liable to accumulate in the form of balls or concretions. Like magnesia, sulphur, cubeb, and chalk, the sesquioxide of iron, when concreted, lodges generally in the rectum, producing irritation, obstruction, and other serious symptoms. It is consequently and very properly recommended that, while patients are taking any of the above remedies which are liable to accumulate and concret, the bowels should be cleared from time to time by a brisk cathartic.

Adulterated Bread.—The bread of the London bakers is universally adulterated with alum for the purpose of bleaching it. In this way bread made of inferior flour is specious to the eye, looking nearly as white as that made of the finest. On asking a baker why he did not make his bread simple and pure as bread made at home, he replied, “Why, sir, we are obliged to put a good face upon it.”

Although alum may be employed only in small quantities, generally of ten or fifteen grains to the quart loaf, as Dr. Paris* supposes, yet on account of its astringent property, and of the harsh dry character it gives to bread only two days old, I cannot but believe that it has an influence in checking the action of the bowels; and that it must therefore be regarded as one of the causes which contribute to establish habitual constipation.

The late Dr. Babington having often heard that the London bakers mixed alum in their bread—to which it was supposed to owe its whiteness—made several attempts to detect it, but without success. Being a man of humour, he determined to try another expedient. Having broken a loaf in two, he rubbed the surfaces with finely powdered alum, and directed that, when the baker next called, he should be informed. Accordingly the man was shown into the library, when the doctor, putting on a serious countenance, observed, “I thought, Mr. Baker, you told me that you never put alum in your bread. Now,” producing the prepared loaf, “what is the meaning of this sparkling appearance, which any one may

* Medical Jurisprudence, vol. i, p. 375.

tell is alum by the taste?" Taken by surprise, and overwhelmed by a palpable proof of the fact, the baker inadvertently replied. "I don't well know how it can be, Sir, but suppose some accident has happened, for we don't in general put as much into the whole batch." And thus the doctor gained his point.

Other astringents of a more deleterious nature have been added to bread by bakers, as *gypsum*, *pipe-clay*, and *chalk*; and an extensive fraud was carried on in Cornwall, where a very considerable portion of porcelain clay—decomposed felspar—from St. Anne's was introduced into the bread. Dr. Paris was informed by Mr. Hume, the chemist, that on examining some biscuits prepared for the use of the Navy, he found as much as eight per cent. of gypsum.*

Concretions, of the various kinds found in the intestinal canal, prove not only sources of spasmodic colic but sometimes of constipation and obstruction. Dr. Good divides them into three kinds; of which he has given a description in his "Study of Medicine" (vol. i. page 376) under the head "Enterolithus."

Fruit Stones, of cherries particularly, are swallowed in great quantities by the lower class of people, without inconvenience for the most part, but at times they lodge and accumulate in some part of the large intestine and originate obstruction with all its attendant symptoms and consequences.

It is related in the "Philosophical Transactions," that Mr. Knowlys being called upon to open a youth, who died, as was supposed, of the colic and convolvulus, found the cæcum "vastly extended and stuffed with abundance of cherry-stones;" which then were proved to be the occasion of his death.†

Cherry-stones accumulated in the cæcum have discharged themselves by abscess in the right groin: the patient recovered.‡ In a person who was affected with a tumour of the abdomen, attended with spasmodic pains and movements, and who died after three years of suffering, the colon was found distended with three pounds of cherry-stones, and amongst them forty lead balls which he had swallowed in the hope of obtaining ease.§ Another person who swallowed a great number of cherry-stones did not render them for six months: nevertheless he did not suffer inconvenience.||

Mr. Stephens relates a case in which a boy ten or eleven years old was seized with pain in the bowels, followed by obstruction. He had a continued tenesmus which induced Mr. Stephens to examine the rectum. Here he found a large accumulation of cherry-stones which he extracted to the number of 312.¶ Two cases of

* Medical Jurisprudence, vol. i. p. 376.

† Philosophical Transactions, vol. xxii. p. 617.

‡ Mémoires de l'Académie de Chirurgie, vol. 1, p. 569.

§ Mémoires de l'Academie de Chirurgie, vol. 1, p. 459.

|| Ibid., p. 460.

¶ A Treatise on Obstructed and Inflamed Hernia, and on Mechanical Obstructions of the Bowels internally: by Henry Stephens. Second Edition. London, 1831, p. 145.

fatal obstruction, the one from almonds eaten in considerable number, the other from nuts, occurred within the knowledge of Drs. Hastings and Streeten.*

An Egg-cup found in the Ileon.—Of all the causes of intestinal obstruction, one of the most extraordinary is that of the egg-cup found by Mr. Dendy in the ileon of a man.

The man was 60 years of age. For several months he suffered from abdominal ailments: but three weeks previous to his death he had intense abdominal pain with retching, &c., and eventually other signs indicating strangulation or obstruction;—such as stercoraceous vomiting and singultus, tumefaction of the abdomen, &c.; the bowels, however, repeatedly ejecting very scanty fluid evacuations.

On the examination of the body after death, an earthen-ware egg-cup was discovered closely impacted in the ileum about ten inches from the cæcum, in which part its lodgment appears to have been determined by the adhesion of the ileon to a hernial sac. But for this obstacle, the egg-cup would probably have traversed the whole of the small intestines and reached the cæcum, perhaps even the rectum, when it might have been discovered and extracted; for as it had passed the pylorus, which was found dilated, one can readily admit the probability of its passing through the more yielding ileo-cœcal valve.† The egg-cup was supposed to have been swallowed.

Allied to this case is the swallowing of knives and of pieces of metal and of money.

In the first volume of the “Memoirs of the Academy of Surgery” there is an extensive collection of examples of foreign substances swallowed: some of which acted as causes of constipation more or less dangerous and fatal.

A piece of leather was swallowed by a shoemaker at Cologne while laughing; it stuck in the œsophagus and threatened suffocation. Fabricius Hildanus pushed it into the stomach, but it did not pass away for six months.‡ A person swallowed a piece of a flute four inches long, which was passed by the anus after three days.§ Another swallowed a silver fork, which passed after many months of great suffering.||

Substances, even of large dimensions, swallowed, pass the pylorus, the valve of the cæcum, and the whole tract of the alimentary canal in a most surprising manner. Even the egg-cup would probably have passed also, had it not been arrested by the adhesion of one of the convolutions of the ileon to a hernial sac.

The part of the alimentary canal where foreign substances are most frequently arrested is the rectum, just within the anus. In the

* Cyclopaedia of Practical Medicine, vol. iv. p. 570.

† This case, with the drawing of the cup, was published by Mr. Dendy in the “Lancet,” 1833-4. vol. i. p. 675.

‡ Mémoires de l’Académie de Chirurgie. A Paris, tome i. p. 447.

§ Ibid. p. 514.

§ Ibid. 518.

article above quoted, examples are given which show how necessary and important it is to examine the rectum where, in cases of constipation and obstruction, tenesmus and other signs of irritation of this gut are present. *Tenesmus*, more particularly, is a diagnostic sign that should be fully appreciated as indicating the presence of some substance in the rectum, in cases of obstruction.

Not only does constipation and obstruction depend frequently on foreign substances swallowed, but sometimes also on substances introduced into the rectum. Some very extraordinary cases of this description are related by M. Morand,* of which the one quoted from Marchetti was no less extraordinary than cruel and malicious.



CHAPTER XI.

OF THE TREATMENT OF HABITUAL CONSTIPATION.

SECTION I.

Peculiarities as regard the action of the bowels in some persons. Early rising. Habit of frequenting the closet regularly and of obeying the calls of nature. Exercise. Change of scene. Diet.

THE treatment of habitual constipation embraces the consideration not only of the use of aperient medicines, but also of all other means, however simple, which promote the action of the bowels.

Simple means will sometimes restore the function of the bowels, when active measures have failed: as will be seen by the following interesting case, just now related to me by one of the party. A gentleman with his wife and sister-in-law arrived at Interlachen in the spring. The sister-in-law had long suffered from constipation, which she had failed to correct by the use of medicine: the menstrua had become irregular and scanty, and her health impaired. By the advice of a Swiss practitioner she took exercise and drank two or three glasses of goat's whey early every morning: and having persevered in this plan for some time her bowels began to act of themselves, and continued to do so to the entire relief of the constipation. Soon afterwards she menstruated plentifully and regularly, and recovered a state of perfect health.

Before we proceed to consider the relative value of the various means alluded to, it will be expedient to glance at certain *peculiarities* which attach to individuals.

As a general result, it obtains that the bowels ought to relieve themselves freely once in twenty-four hours. Yet the exceptions

* *Ibid. tome iii. p. 620, et seq.*

are many in which persons have habitually two, even three, evacuations daily; and, on the other hand, in which persons have habitually an evacuation only every second or every third day; both the one and the other habit being not only consistent with but conducive to the health and comfort of each class of persons. Two extraordinary instances of peculiarity in this respect are mentioned by Heberden.* In one the body was open only once a month; in the other it was open twelve times a day for thirty years, and then seven times a day for seven years. To these exceptions the physician should strictly attend; refraining in the one case from checking the naturally frequent, and in the other from accelerating the naturally unfrequent action of the bowels. It is the latter idiosyncrasy that will engage our attention.

It has occurred to me, on several occasions, to meet with individuals having the above peculiarities; which experience has taught me to respect. Indeed the physician will act wisely not to disregard idiosyncrasy of any description, whether it refer to the habit of body just spoken of, whether to the influence of particular drugs, or to the irritability of the skin. Some individuals cannot take the smallest dose of opium without unpleasant effects: some it distracts and maddens. Some are salivated by the smallest quantity of mercury. Some have the skin so susceptible that leeches and blisters never fail to excite an erysipelas.

To these peculiarities, when stated, we are too little disposed to listen; we are apt to regard them as caprices and fancies rather than as true idiosyncrasies, until some untoward occurrences admonish us that they cannot be slighted or disregarded without hazard to the well-being of our patients and to the reputation of ourselves. A gentleman is known to me whose bowels act habitually every alternate day, and who is never so well if they act more frequently, he becoming then weak and languid. I knew a lady, too, who enjoyed good health and lived to a great age, in whom an action took place habitually only once in three or four days, and whose health suffered if this habit was interfered with by medicine. Renauldin† mentions the instance of a lady who passed ordinarily a whole week, and sometimes ten and fifteen days, without going to the closet; and she was scarcely ever indisposed.

This less frequent action of the bowels, in particular individuals, is not properly a state of constipation, the dejections being of a healthy character, and not having undergone those changes of dryness and hardness which they usually do when so long retained. Here it would be unwise and officious to interfere, seeing that not only no inconvenience but absolute good results from this habit. In determining then the use of aperient medicines the physician should not be unmindful of these facts.

It should be remembered, nevertheless, that this unfrequent action

* *Commentarii de Morborum Historia et Curatione.* Editio Altera, p. 14.
Londini.

† *Dict. des Sciences Médicales*, vol. vi. p. 254.

of the bowels, though consistent with and conducive to the health of the individual, is pernicious to persons generally; and that it is to be regarded as salutary only where the dejections are copious, free, and of natural colour and consistence. For we meet with patients who contend that they are more comfortable and feel better on those days when there is no action of the bowels, although in them the excrementitious residue shall, by this retention, undergo the pernicious changes incidental to constipation, and be voided with pain and difficulty. In such persons I have never known the health good, however comfortable they may feel in the absence of dejections; and I have generally found that they are affected with piles or irritation of the rectum, which cause them to suffer when evacuations occur; and which local sufferings have been produced, in the first instance, and the health probably impaired, by the habit and state of constipation; and can only be relieved and improved by obviating it by appropriate means.

REGIMEN.—The influence of regimen in obviating constipation by promoting the healthy and daily exoneration of the bowels is unquestionable.

Early Rising favours the natural action of the bowels. By early rising, I would understand rather the avoiding a second sleep in the morning than the getting up at any specified hour. On account of the difference of habits in different classes, and of those who reside in town and in the country, that hour which is early to one may be late to another; and *vice versa*. Early rising, then, must be construed relatively. A certain duration of sleep is essential. If the husbandman retires to rest at eight o'clock, and the citizen at eleven, both cannot be expected to rise at the same hour. Allowing eight hours sleep to each, early rising to the husbandman would be four, to the citizen seven o'clock. It is the lingering in bed, the going to sleep a second time after having enjoyed a good night's rest, that does the mischief. A person awakes refreshed, light, cheerful: but if, instead of at once getting up, he dozes off to sleep again, he afterwards rises with unwillingness; and finds his head heavy, his spirits dull, and his bowels indisposed to act. The reverse is the case with him who avoids this second sleep and thus in fact rises early: he is brisk and cheerful; a state highly favourable to the alvine function.

Next to early rising, and not less important is the *habit of frequenting the closet regularly at a certain period of the day, and of strictly obeying the calls of nature*. The mischief accruing from neglect of this latter circumstance has been already commented upon; it is only requisite for me now to urge the necessity of attending to these admonitions. However slight they may be, let them be obeyed; and, what is more, if the effect does not take place as anticipated, wait patiently and solicit nature; by which means that end will often be accomplished which otherwise would seem impossible.

The customs and callings of civilized life are too often opposed

to the maintenance of health. We eat in such haste that one would suppose mastication was superfluous: hence one common source of indigestion and its consequences. So when we retire to the closet, if nature does not relieve herself at the instant, we make no further effort; and constipation is allowed to take place and to continue.

Exercise, as opposed to sedentary habits, is often a successful means of obviating constipation. Many there are who, when in exercise, have their bowels regular; but who, when obliged to follow some sedentary occupation, suffer from constipation immediately. Gentle exercise immediately after breakfast is favourable to the end in view. Exercise of the muscular system, as a general means of preserving health, has been so admirably portrayed and insisted on by Drs. Combe,* Barlow,† and Forbes,‡ that I shall best consult the welfare of my readers, and of young persons especially, by referring them to the valuable observations of these authors.

Change of scene to those who suffer from habitual constipation has often a marked salutary effect. I know a gentleman who, when confined to the city, was always troubled with costive bowels: but, when he was able to liberate himself from the anxieties of business and take an excursion into the country, the bowels acted of themselves most freely and regularly. I know another who, when confined to his professional duties in town, suffers equally, but when he can escape from them, even for a day, the bowels are not only no longer confined, but act as it were with impatience. It does not follow, however, that change of scene produces this desirable effect upon all. Far from this, it does not relieve habitual constipation in the greater number, and it is this point particularly on which I desire to say a few words.

The beneficial influence of change of scene on the general health is so fully appreciated, that it would be superfluous to expatiate on it at this time. Yet all the advantages which it would afford are often marred by a costive state of the bowels; the pernicious effect of which altogether counteracts the good which would otherwise result. Persons who make excursions to the country or to the continent on the score of health should be provided with instructions and means to obviate constipation: else they may as well remain at home. I believe I may say without exaggeration, that inattention to this point is the main cause of the disappointment which those dyspeptics feel who go into the country for health, and find they return with little amendment.

DIET.—By the aid of diet, much may often be accomplished. A glass of cold water taken on rising in the morning, will in some promote an action of the bowels. A light breakfast to those who

* Physiology applied to the Preservation of Health. By Andrew Combe, M.D. Chap. IV. On the Nature of the Muscular System.

† Cyclopædia of Practical Medicine, article Physical Education. By Dr. Barlow, of Bath, vol. i., p. 698.

‡ See note appended by the editor, Dr. Forbes, to the above article of Dr. Barlow, vol. i., p. 698.

are sedentary will favour this action, especially if eaten soon after getting up, when a heavy or full breakfast is of a very questionable propriety.

Coarse brown or bran bread is very efficacious, the bran acting as a salutary stimulus to the peristaltic action of the intestines. It is open sometimes to the objection of the bran exciting irritation in the rectum; on which account some persons are unable to continue its use.

Figs, prunes, mustard seed, and ripe fruits are taken with the same view and often with good effect. It is probable that the seeds of figs and of mustard act, like bran, by their mechanical irritation, which promotes the action of the bowels without any injurious influence on the mucous membrane. The white mustard seed was some years ago taken almost generally in a vast variety of complaints, the greater number of which it was found to alleviate, and some to cure. The stimulant property of mustard seed may have been, in part, the means of relief to dyspeptics, but I incline strongly to the opinion that the good resulting from the use of this seed depended on its securing the action of the bowels in those habitually costive, a proof of the vast influence which the regular evacuation of the alimentary canal has on all diseases.

Bacon, either broiled and eaten hot, or boiled and eaten cold for breakfast, is a useful auxiliary in regulating the bowels. What is remarkable in relation to the fat of bacon is that dyspeptics digest it well and easily. Even persons who are bilious and altogether unable to partake of rich dishes eat bacon not only without unpleasant consequences but with decided advantage; the more so in proportion as it encourages the action of the bowels.

Like the other articles which have been enumerated, bacon, particularly broiled, should not be taken daily for too long a period, or it may recoil upon and satiate the stomach. It is better to vary diet from time to time, and to endeavour, by the judicious and alternate use of the several means described, to bring about and retain the natural function of the intestinal canal. Trivial and unimportant as these means may appear, they nevertheless exercise a decided and beneficial influence, and will often go far to re-establish the health, which has been much disordered by habitual constipation.

SECTION II.

ON THE USE OF APERIENT MEDICINES.

As relates to age, sex, temperament, idiosyncrasy. Choice of aperient medicines. Frequency of their administration. Period of the day.

The use of aperient medicines, in the treatment of habitual constipation, offers a very wide field for observation and remark; and is a subject to which an attention proportionate to its importance has not, I think, been accorded.

The chief indication in the treatment of habitual constipation is to restore the excretory function of the alimentary canal to its normal and natural state; an object best accomplished, not by purging the bowels but by securing their full and free action at regular periods by medicines which not only act but which dispose the bowels to act of themselves. Many aperients, as is well known, operate mildly and effectually, but leave the bowels constipated: while others operate equally well and leave the bowels disposed to their natural functions, a desideratum of the first importance.

It has been too much the custom to remove constipation by doses of purgative medicine rather than to obviate it by the periodical administration of some appropriate aperient: the result of which practice is that the bowels are always either confined or purged; states deviating too much from their natural function to be compatible with health. The medicines prescribed are pretty uniformly the same; colocynth and calomel, or a "black dose" of senna and salts, being the ordinary resource. They purge the bowels but distress the patient; and leave him equally or more liable to constipation.

In speaking thus, let me not be understood as speaking too generally: the exceptions to the remark are many, but it will, I apprehend, be admitted that the system of giving single aperient or cathartic doses, rather than of pursuing a systematic course of laxative treatment, prevails.

The circumstances under which constipation exists vary indefinitely. They relate to age, sex, temperament, idiosyncrasy; they relate also to the affections which have arisen as consequences of the constipation, and to other affections which may happen incidentally to be combined with it, or of which the constipation may be only a symptom. All these points require to be considered before it can be determined what aperient is most proper to be employed.

Age refers more particularly to the early and late periods of life. In childhood mild aperients, as castor oil and senna, are to be preferred. I allude to children of a costive habit, which, although not frequent, is far from uncommon, and I have thought has been derived in some instances from the mother. These mild aperients are not introduced as substitutes of the active purgatives which are found to be so beneficial in many of the disorders of children: they are recommended only as the more desirable means of regulating the bowels where they are habitually confined. In advanced life the more active and stimulating resinous cathartics are generally requisite, the less powerful proving altogether ineffectual. Aloes, colocynth, camboge, and scammony administered singly or variously combined, act efficiently and pleasantly at this age; while rhubarb may fail altogether; which is especially the case in those affected with paralysis.

Sex may perhaps demand less consideration than either of the other circumstances. On the whole I have found that females

require more active aperients than males: which may be ascribed to the greater frequency of constipation in them rather than to their sex.

Temperament certainly merits consideration. Persons of a sanguine temperament will not, for the most part, bear or require an equal dose with those of the phlegmatic or melancholic. Yet the exceptions are numerous: and the physician therefore must often rely on his own discrimination to guide him in the choice of means.

Idiosyncrasy should never be overlooked or slighted. In some persons, a dose of calomel will produce tremors and depression of spirits; in others, it will gripe and rake the bowels most sadly. In some, rhubarb will not act, but, on the contrary, rather confine the bowels: in others, it is rejected from the stomach altogether. In some, magnesia lies so heavy and cold at the stomach that they refuse to take it. In many, salts produce flatulence and coldness in the bowels, with great rumbling and disturbance, and, at the same time, insufficient and unsatisfactory evacuations. In many, aloes excite so much irritation in the rectum as to be altogether inadmissible. And, lastly, some persons are so gripped by senna as to take it with great reluctance: although it is perhaps the most valuable, because the least injurious, aperient that we possess.

It is surprising how great is the difference in individuals as to the degree of purging they will bear and require. I have known ladies made faint and really ill for two or three days by the action of an ordinary cathartic pill and draught; while others will bear and require purging to a very great degree; dose after dose, dejection after dejection, affording great relief. As no general rule can be laid down on this head, the practitioner must rely on his own judgment, formed on information derived from the patients themselves; which will place him in possession of their constitutional peculiarities.

The consequences already existing of habitual constipation should very materially influence our decision *in the choice of aperient medicines*. Where there is irritation of the pelvic viscera generally, or any special affection of either of these viscera, or of the large intestine, the aperient must be selected accordingly. In irritation of the pelvic viscera all aperients which stimulate the rectum should be avoided; or so combined with others as to neutralise or obviate this property. Thus, aloes given alone would be inadmissible, but conjoined with the sulphate and carbonate of magnesia forms a most valuable compound, efficient and not heating or irritating. So, in any affection of the bladder or womb, the same rule must be observed. Conceive the distress that would result from the use of a resinous cathartic where there is vesical or uterine irritation; and the comfort that will be derived from relieving the bowels by laxatives free from any irritating property, as senna, or salts and magnesia. Salts too, though desirable because they do not distress the rectum, are yet rather to be avoided where the

bladder is very irritable, for the reason that they impregnate the urine and render it more stimulating. Whereas one object in the treatment of constipation combined with vesical irritation should be to diminish the saline and stimulating properties of the urine by diluents and by the avoidance of saline medicines.

In fecal accumulations in the colon, and in accidental obstructions independent of any organic cause, active and stimulating purgatives followed by salines may be most advantageously given at once in full dose: but if they fail of success, then I agree with Dr. Holland that the persisting in the use of these powerful cathartics is a question of very doubtful propriety. The practice pursued in Case XLIX. of discontinuing active means and substituting salines gives weight to the above remarks; it having been entirely successful.

Where piles or anal fissures exist, sulphur has long been the popular as well as the professional resource, on account of the mildness with which it operates: all acrid purgatives being universally avoided in these cases.

Where any special disease, as stricture of the large intestine, if present, cathartics, however powerful, which act merely by increasing the peristaltic action of the intestine, are inefficient, the stricture offering an insuperable obstacle to the passage of feculent matter of ordinary consistence. Such cathartics urge on the intestine to ineffectual efforts, produce violent spasms and sometimes, indeed, rupture of the gut. Salines, on the contrary, not only excite the peristaltic action moderately but at the same time render the feces liquid, and thus favour and secure their passage through the narrowed channel of the bowel; greatly to the comfort and relief of the patient.

It is not necessary to pursue this subject further at the present time; inasmuch as it yet remains for me to speak, in detail, of the properties and eligibilities of individual medicines: whatever may have been now omitted will naturally present itself for consideration; and repetition be thus avoided.

Not only is it important to select the aperient best suited to every individual case, but to determine *the frequency* with which it should be repeated, and *the time of day* at which it should be administered.

Although the ultimate object in the treatment of habitual constipation is to bring about an action of the bowels once in twenty-four hours, it may not in all cases be proper to attempt this in the first instance by administering opening medicine daily. In persons habitually costive it is at first no easy matter to regulate the dose so that it may simply relieve the bowels. A small dose will often prove ineffectual, a large one too powerful; and were this repeated every day the patient would be distressed. I have generally found it better, at the commencement, to administer aperients in sufficient dose every other day,—taking the chance of the bowels relieving themselves on the alternate day,—until they have been brought into a more tractable state, and the influence of medicines upon the in-

dividual ascertained : after which the aperient can be so regulated in dose as to be administered daily with advantage.

Perseverance on the part of the patient is absolutely necessary, in order that the bowels may be regularly exonerated, and continue to be so for a period sufficiently long to restore their natural habit and function. In proportion as the state of the bowels improves and becomes more tractable, so let the dose of the aperient be diminished, till at length little, and eventually none, shall be required. I have known persons obliged to commence with an ounce of infusion of senna, who have been gradually able to reduce it to a tea-spoonful. So with castor oil, dinner pills, and the like.

The time of day at which opening medicine should be taken is of some moment. It being always conducive to the patient's comfort that the bowels should act in the morning, medicines should, with this view, be given either before dinner; at bed-time; or on getting up ; according to the length of time they require for operation. Pills are often taken advantageously a few minutes before dinner, for they act certainly better and in less dose than when taken after dinner. They may also be taken in the evening. Senna should be taken at bed-time, and, on the whole, it will be found that aperients sit better upon the stomach at this period than at any other ; and, by carrying down the contents of the stomach and upper part of the alimentary canal during the first part of the night, promote and often insure tranquil rest, which otherwise would be disturbed. Salts should be taken on an empty stomach, and therefore in the morning; because they act quickly, usually in one or two hours, if the dose is well regulated.

In those who are troubled with piles it is greatly to their comfort to have the bowels relieved in the evening, because they soon afterwards go to bed, and their sufferings, which have been aggravated by the action of the bowels, are relieved by the horizontal position. Whereas, if the bowels act in the morning, the irritation arising therefrom is kept up during the day by exercise and the erect position.

SECTION III.

OF THE ACTION AND VALUE OF APERIENT MEDICINES ADMINISTERED SINGLY OR IN COMBINATION.

Sulphur. Magnesia. Rhubarb. Jalap. Aloes. Colocynth. Seammony. Camboge. Castor oil. Saline aperients. Senna.

It remains for me to endeavour to determine the action and value of aperient medicines administered singly or in combination, as well as the grounds on which they are to be preferred in the treat-

ment of those disorders which have been regarded, in the former part of this work, as consequences of habitual constipation.

Inasmuch as the circumstances under which aperient medicines are employed are numerous and complicated, so is it requisite to call to our aid the whole list of drugs classed as cathartics, with the single exception, perhaps, of elaterium. For although many of them are powerful and drastic when prescribed in full dose, they yet act mildly and efficaciously when the dose is moderated, or when they are combined with others less active. Besides, so great is the difference in the strength of drug required in different individuals, that colocynth, camboge, aloes, or scammony may be proper in one person, while a few grains of rhubarb may suffice in another. Even croton oil, in minute doses, proves often an eligible and valuable adjunct.

It is not my purpose to describe at length or systematically the virtues and properties of cathartic drugs—a task already ably performed in treatises on *Materia Medica* and *Pharmacology*—but to endeavour to point out the manner in which they may be adapted to the particular cases, so as most effectually to fulfil the great object in view, the obviating habitual constipation.

Sulphur may be resorted to as an aperient in habitual constipation when attended with piles, from its well-known mild operation, and the little distress it occasions to the rectum. It is usually combined with confection of senna, and given at bed-time; but in order that the action of the bowels may take place in the evening—which we have seen is desirable where there are piles—it would be better administered about noon. It is also given in any thick simple vehicle, as barley-water, gruel, or milk, once or twice a day, in the dose of half a drachm, or a drachm, and may be combined with magnesia, in the quantity of fifteen grains. When its odour is manifested on the skin, it should be discontinued.

Magnesia, by its union with the acids which it meets with in the stomach and alimentary canal, often acts as an aperient. Its operation however is so mild that it cannot always be depended upon; yet in many persons it answers the purpose perfectly. It therefore has the double power of correcting acidity in the stomach, and of promoting the action of the bowels; on which account it is taken by some persons daily in large quantities, as a tea or table spoonful. It should be recollected, that when taken in such quantity for a considerable time, it is liable to accumulate in the large intestine in consequence of its insolubility; and therefore is a very, objectionable medicine in cases where there is any mechanical alvine obstruction, as stricture.

The properties of magnesia render it a most valuable medicine when given in combination with other aperients; particularly with the sulphate of magnesia, or with the compound decoction of aloes or with both. Its combination with rhubarb, in the proportion of two grains to one, is an excellent and popular form. I generally prescribe the carbonate, which Dr. A. T. Thomson rather objects

to on account of the disengagement of the carbonic acid; an inconvenience which I have myself not found complained of. Magnesia alone or in combination is particularly indicated where there is acidity, heat of stomach, and irritation of the pelvic viscera. Where magnesia lies heavy and cold in the stomach it should be avoided. In a lady whom I attend, the stomach rejects it altogether.

The solution of magnesia recently introduced is likely to prove the most agreeable form for administration.

Rhubarb, though an excellent stomachic aperient, is not a desirable medicine in habitual constipation, because it is apt to leave the bowels confined. Where, however, there is dyspepsia with constipation, and where other aperients do not so well agree, rhubarb is a good resource. It associates well with ammonia, soda, magnesia, sulphate of potass, aloes, and bitters.

For the purpose simply of an aperient, it may be made into a mass with the tincture of rhubarb, and divided into two or three grain pills, of which as many may be taken at bed-time, or before dinner, as are found requisite. Rhubarb forms into pills equally well with water, but when kept long in this state is liable to decay. Soap is often added to keep the pills moist, but as, when many are taken for a considerable time, the soap seems to favour their accumulation into one tough mass in the large intestine, as in Case LV., p. 97, it is perhaps better omitted. I have known persons regulate their bowels and improve the appetite by chewing a few grains of rhubarb immediately before dinner every day. The compound tincture of rhubarb is an excellent cordial and tonic, but too heating to be used as an ordinary aperient. The idiosyncrasies in relation to rhubarb are, that it will not act as an aperient with some persons, or be retained on the stomach by others.

Jalap is a most efficacious and excellent aperient, except that it is apt to nauseate the stomach; for which reason it is not so frequently prescribed as its virtues would justify. In moderate doses, it increases the peristaltic action of the bowels, and secures copious and consistent evacuations, without irritating the rectum or neighbouring viscera. Its dose too may be regulated with great nicety. I have found it agree well when combined with an equal quantity of rhubarb and made into pills with mucilage; of which as many may be taken at bedtime as may be found necessary. It forms a good addition to aloes and the other resinous purgatives, where such aperients are proper. In many instances of very obstinate habitual constipation where other active aperients have failed, or have not been admissible, jalap has proved most effectual. In such cases I have administered it at bed-time mixed with the confection of senna: and at the present moment I have under care a person afflicted with the fibrous tumour of the uterus, in whom jalap is the only medicine that acts freely and without distress. The tincture added to aperient mixtures increases very much their efficacy.

In a patient of the Public Dispensary, rather advanced in life,

whose abdomen was tympanitic from constipation, so that she appeared like a person in an advanced state of pregnancy, the jalap,* in the dose of half a drachm, removed the flatulence most thoroughly. She had long suffered from this distension, and had received but little relief from other medicines.

The extract of jalap, properly prepared, is an active and convenient form for administration: but the extract kept in the shops is uncertain. A patient of mine, for whom the extract had been prescribed, found the pills inert: but having obtained some from another house, the due effect was produced. The efficient pills she had procured from Godfrey and Cooke, which induced me to inquire of them how their extract was prepared, when I was informed that they macerated the jalap in rectified spirit, instead of spirit and water.

Aloës, on account of its well-known purgative property and the readiness with which it is formed into pills—the most convenient form of medicine—is a popular resource as an aperient. It is very certain in its operation, but objectionable as a general remedy in habitual constipation, because it leaves the bowels disposed to be confined, so that no ground is gained beyond the immediate relief; and because when taken continually it rather loses its effect, and requires the dose to be augmented. It is objectionable also on account of its heating property and its irritating effect upon the rectum, and, through the sympathy of contiguity, on the other pelvic viscera. Where habitual constipation has already induced irritation and congestion of the bladder, uterus, or rectum separately or combined, or where there are piles, anal fissures, or prolapsus, aloës is altogether inappropriate and inadmissible.

In young persons particularly, in whom the organic sensibility is always more easily excited, it is still less proper as an habitual aperient, though excellent often as a remedy in chorea, chlorosis, and amenorrhœa. In the middle or later periods of life, if there is little or no pelvic irritation present, it is found to regulate the bowels beneficially; and usually forms the active ingredient in dinner pills.† Many take pills of this description for years without inconvenience; and if attention is paid to the calls of nature, and a habit of frequenting the closet at a particular time, as at getting up in the morning or after breakfast, is cultivated, the dose may sometimes be lessened to a very harmless degree. The pills should be taken a few minutes before dinner. It is better that they should contain each

* As an occasional purge, where the bowels are foul, as in persons on the eve of having an attack of gout, the following jalap draught, taken fasting in the morning, clears the alimentary canal most beneficially, and without distress:—
R. Pulv. Jalapæ ʒss.; Vini Colchici, Tinæt. Hyoscyami, Tinæt. Lavand. Comp.,—singulorum f. ʒss.; Aquæ Distillatæ f. ʒi. Misce.

† The following is a good form:—

R. Aloës ʒj; Pulv. Rhei ʒij; Pulv. Ipecacuanhæ gr. v.; Mellis gr. xii.; Spirit. Tenuioris quantum satis est. Misce, et in Pilulas xx. vel. xxx. vel xl. divide. Ex quibus unam, quas, vel tres paulo ante prandium quotidie sumat.

but a small dose of aloes, as the third or half of a grain or a single grain, in order that no more may be taken than is absolutely required; so that, according as the habit is costive, and as the bowels may, from day to day, require—one, two, or three of the pills of either strength may be taken. When given in substance it should be reduced to a very fine powder. The mechanical division of this and of other resinous purgatives influences their operation. It is stated by Dr. A. T. Thomson,* that "Resinous cathartics coarsely powdered cause griping and tenesmus, while in a state of more subtle division they operate with little sensible effect, a circumstance at variance with the law which regulates the degree of action of most other substances."

The compound decoction of aloes is comparatively free from the irritating property of aloes given in substance: and when prescribed in combination with the carbonate and sulphate of magnesia† constitutes one of the most useful medicines in the treatment of the consequences of habitual constipation. The mixture may be taken at bed-time, and repeated either on getting up, or at noon, on the following day. Given alone, the compound decoction is a good aperient in hypochondriac and many nervous dyspeptics; excepting however where there is a feverish or inflammatory disposition, as evinced by hot hand, flushed face, and high coloured urine. It may be taken in the quantity of half an ounce twice a day; or of six drachms, or of an ounce, the first thing in the morning. For this purpose the simple tincture, the *tinctura aloës*, answers also in the same doses; but the excessive quantity of liquorice which it contains disgusts the palate and stomach when taken alone.

Colocynth, which is always used in the form of extract, simple or compound, should be prescribed very nearly under the same circumstances, and with the same reservations as aloes.

The simple extract is on the whole preferable as an habitual aperient; and either it or the compound may be advantageously combined with the extract of henbane, which diminishes its griping and irritating quality, and renders its action more agreeable. It is constantly employed in combination with calomel as an efficient purge: and occasionally I have had recourse to this combination, in small doses, in conjunction with mild and cooling aperients, during the early treatment, where the constipation has been obstinate and the patient bilious. In this case the stronger medicines—though at times desirable to shun—are frequently required until the bowels have been rendered tractable and responsive to milder means: which, with care, they soon become.

In colic, from obstinate constipation, the colocynth and calomel

* Cyclopædia of Practical Medicine, article Cathartics.

† The following is the general form used by the author:—

R. Magnesiæ Carbonatis $\frac{3}{4}$ iss.; Magnesiæ Sulphatis $\frac{3}{4}$ vj.; Decocti Aloës Comp. f. $\frac{3}{4}$ ij.; Aquæ Distillat. f. $\frac{3}{4}$ vj. Misce. Cochlearia quo vel tria majora semel bisve quotidie capiat.

conjoined with opium, all in full dose, may be given at the outset, and be followed by saline aperients: the effect of the whole being to allay pain, to excite the peristaltic action decidedly, and to render the retained excrement more or less liquid and easy of expulsion.

Scammony, which in full dose is a very drastic purgative, and on that account not an eligible medicine to be employed alone in habitual constipation, is, nevertheless, useful and proper in combination where the stronger medicines are required. With aloes and jalap* it is found at the Westminster Hospital to be effectual where the bowels are obstinate. With the powder of senna, in the form of confection, it adds to its efficacy. With the extract of jalap, as in the pulvis scammonii comp. of the London Pharmacopœia, it is a most powerful cathartic, and in a modified dose is an effectual aperient; more agreeable however and suitable to the stomach when formed into pills with confection of roses than when administered in powder.

Camboge, like scammony, is drastic in full dose, and open to the same general objection and commendation. It proved most useful and effectual in Case XXI., where it was almost impossible to regulate the bowels by other means. In the compound camboge pill it is combined with aloes, ginger, and soap, a combination of most promising efficacy; but which, in my practice, has not answered my expectation; it having failed to act in proportion to the dose. I have observed the failure in other compounds of the pharmacopœia, as the compound rhubarb pill: and so little reliance am I able to place upon them, in a general way, that I almost invariably prescribe extempore and at length. This failure must, I think, be attributed to the inferior materials employed, the retail houses frequently purchasing these compounds ready prepared in the mass; and stipulating for a lower price than the genuine articles can be supplied at. It cannot in any way depend on the combinations themselves, as prescribed by the College, for they are appropriate and excellent. It must, I am sure, be a matter of common experience and observation with practitioners that the opium in the pulvis ipecacuanhæ comp. and in the pilulæ saponis comp. produces less effect in proportion to the dose than when the opium is given alone. The latter, indeed, can scarcely be relied upon when the full effect of opium is desired.

Calomel, on account of its specific virtues as a mercurial, is altogether unfit for use as an aperient. In the treatment of habitual constipation it can only be had recourse to where there is a congestion of the liver or disordered or deficient secretion of bile; then it may be safely and advantageously employed in combination with rhubarb; aided, if necessary, by other aperients. Where the

* Rx Scammonii, aloës, singulorum 3j.; Jalapæ 3ss; Misturæ Acaciæ quantum satis est. Misce et in Pilulas xx. divide. Capiat unam velquas horâ de cubitūs.

R. Scammonii, Aloës, singulorum 3ij.; Terebinthinæ Chie 3j. Misce et in Pilulas xvij. divide. Sumat unam vel quas vespere.

bowels are obstinate and there is no objection, on the score of piles or pelvic irritation, it may be given at bed-time with colocynth, and be followed in the morning or in the day by a saline aperient with magnesia. As it is requisite in these cases to continue the calomel for some time, the dose should not exceed a quarter, half, or a whole grain.

Calomel, after a few doses, will excite in some persons a most distressing irritation of the rectum with tenesmus; which is usually relieved by an injection of barley water, the calomel being discontinued of course.

Calomel is too indiscriminately added to colocynth for the purpose of increasing its efficacy as an aperient, a practice certainly to be condemned, because of the specific influence of the mercurial which may suddenly and unexpectedly affect the individual so taking it; besides exposing him to the risk of cold. It is indeed, as has been already stated, entirely unfit to be used as an ordinary aperient.

Castor Oil is, on the whole, one of the most innocuous and certain aperients in the *Materia Medica*, and would no doubt be used habitually were it not that its taste is so disgusting to many, that they cannot take it or retain it upon the stomach. The castor oil of the present day, is tasteless, compared with that formerly in use, and can be taken by many without repugnance. It acts quickly, does not produce a subsequent costiveness; and the longer it is given the less the dose required; a great desideratum. If taken daily the quantity may gradually be diminished to half a tea-spoonful; Dr. Thomson says to a few drops; and yet the full effect be maintained.

The proper time for taking it is fasting in the morning; the best form is the pure oil floating on a little coffee, sherry wine, or brandy and water. A young woman, who had recently been in the Westminster Hospital—affected with uterine irritation, hypertrophy of the left mamma, and hysterical fits, the consequences of habitual constipation—and whose bowels it was difficult to regulate, went into the country, and, while there, took every morning, fasting, a single tea-spoonful of castor oil on coffee, which acted most regularly and pleasantly upon the bowels, and in a few weeks relieved and removed all her other symptoms, so that she returned to town and presented herself to me in perfect health; her case being a good illustration of the efficacy of castor oil, and of the dependence of the uterine and other ailments on the state of constipation.

Croton Oil.—Though I cannot, from my own experience, say much in favour of minute doses of croton oil as an habitual aperient—it being my practice to avoid having recourse to acrid and drastic cathartics as much as possible—yet, when other means have not answered, I have occasionally prescribed it in combination in the form of pill, and certainly with effect; though it has excited an unpleasant heat in the stomach, which did not allow it to be repeated for any length of time. Others, however, speak favourably of its operation in doses of one-eighth or one-twelfth of a drop.

Some very valuable and practical remarks on the mode of preparing and administering the croton oil were made by the late Mr. John Pope.* He showed that the acrid irritating property of the oil is contained in the husk and epidermic coat of the seed; and that, from the medulla alone of the seed, a perfectly safe and efficacious purgative may be obtained. It is stated also that in India the medulla is employed in substance universally as the ordinary purgative of the natives; a proof of its superiority, I think, over the oil in common use. Mr. Pope's opinions and statements are borne out by our own knowledge of the kernel of the walnut, which, if we eat without peeling off the epidermis, is pungent, acrid, and disagreeable; but, deprived of it, the kernel is mild and of most pleasing flavour. I am afraid the information offered by Mr. Pope has not been taken advantage of in the preparation of the oil in general use, or we should have less occasion to complain of its irritating properties.

The mode of administration recommended by Mr. Pope is an alcoholic tincture;† for, although the oil of tiglum is only partially soluble in alcohol, he affirms that it takes up the whole of the purgative principle. This tincture is extremely convenient, admitting as it does of correct subdivision, so that any minute dose of the oil may thus be insured. A proper vehicle in which to administer the oil is the almond emulsion, the oil being first rubbed up with sugar.‡ The alcoholic tincture should be mixed with compound tragacanth powder and distilled water. For a child, the twelfth part of a drop is a sufficient dose. As a precaution any mixture containing the oil should be thoroughly shaken up before it is administered. In a case of cerebral irritation, with a drowsy insensibility approaching to coma, the obstinacy of the bowels was overcome by one drop of the tiglum oil mixed up with mucilage and water, and taken at two doses. It acted most powerfully, and the child forthwith began to recover.

Croton oil is particularly adapted to cases of coma, where the power of deglutition is suspended on account of the smallness of its bulk and of its purgative property when merely placed upon the tongue. Two drops applied in this manner are a valuable resource under such circumstances. Dr. Hen. U. Thomson informs me that, in cases of apoplexy where the patient has been unable to swallow, he has succeeded in procuring a free action of the bowels by means of croton oil—five drops formed into a suppository with crumb of bread—introduced high into the rectum.

* On a New Preparation of Croton Tiglum. By the late John Pope, Esq. Medical and Chirurgical Transactions, vol. xiii. p. 97.

† Take of the seeds of Croton Tiglum, carefully deprived of the husk and epidermis, and bruised, two ounces, alcohol, sp. gr. 836° twelve ounces; digest for six days and strain. The dose of the filtered tincture for an adult is about 20 minims, which may be made into a draught with compound powder of tragacanth and water.

‡ Mr. Pope preferred dissolving the oil in a little alcohol, in the proportion of one drop to half a drachm, in which state it is easily diffused in some thin fluid.

Saline aperients having the property of inducing a copious watery exhalation from the mucous surface of the intestine, as well as of increasing its peristaltic action, are especially adapted to evacuate the bowels where any pathological condition offers an impediment to the free passage of consistent feces. In cases of stricture, for example, of any part of the alimentary canal, saline aperients are our best resource; for, by rendering the excrementitious matter thin and watery, they favour and effect its passage through the narrowed channel, which would altogether resist and not admit of the passage of feces in their ordinary state, however much the peristaltic action might be increased by more powerful cathartics. These latter, indeed, by the violence of their action against an obstacle which the gut cannot overcome, cause dreadful spasms, and occasionally rupture the bowel.

Saline aperients administered alone, in cases of habitual constipation, often disagree, and are oftener ineffectual; "they do not work off," especially in small repeated doses. In many they cause a headache, a coldness at the stomach, a rumbling of the bowels, and insufficient liquid evacuations; which, indeed, often pass and leave scybalous or hardened feces in the cells of the colon.

Combined with an aperient of a different character, as aloes, rhubarb, senna, and the like, they agree well, are very efficacious and beneficial. I have already remarked on the combination of the sulphate and carbonate of magnesia and the compound decoction of aloes, as exceedingly beneficial in constipation attended with heartburn, heat at the stomach, and irritation of the pelvic viscera.

The sulphate of potass with rhubarb has long been a favourite opening draught for persons whose bowels are easily acted on, and distressed by stronger cathartics. Salts and senna are a common domestic and efficient aperient, but so disagreeable as to be ill-adapted for continued use. As a dose, this mixture is tolerated, but the stomach abhors its frequent repetition.

The cooling effect of saline aperients adapts them well to full habits with an excess of animal heat; or where there is a sensation of heat in the abdomen. Here they should be given so as to imitate, as much as possible, the natural saline springs of Cheltenham, Leamington, or Beulah Spa; viz. in a largely diluted solution, as from one drachm to half an ounce of the sulphate of magnesia dissolved in half a pint of tepid water and taken fasting, or the imitation may be more close by a composition of several salts as directed in the Edinburgh Pharmacopœia in the pulvis salinus compositus; the ingredients of which are chloride of sodium and sulphate of magnesia, of each four parts, sulphate of potass three parts. A most agreeable form is the Seidlitz powders, which are composed of the potassium-tartrate of soda, the sesquicarbonate of soda, and tartaric acid. Their operation is quick, usually within one or two hours, very copious and frequent, but in no way distressing either to the rectum or general system. Often it happens that the salines

alone, though given as above, do not act satisfactorily; in which case they may be preceded and aided by a compound rhubarb pill, or a few grains of the extract of colocynth taken at bed-time: the heating effect of either of which is counteracted by the saline on the following morning.

Saline aperients associated with tonics are with many very favourite means of regulating the bowels in particular habits; as the sulphate of magnesia, or soda in solution with the sulphate of iron; or the sulphate of potass in infusion of quassia.

Salines are desirable aperients in the dysentery of this country; and also in those states of thickening of the sub-mucous tissue of the colon, congestion of its mucous membrane, and diminution of its calibre, which result from habitual constipation in plethoric habits; and are indicated by tenderness on pressure in the region and course of the colon, and by griping pains always occurring during the action of other aperients, as well as by slight indisposition, evidently depending on the digestive organs, and yet not distinctly referable to the stomach or liver.

Senna.—Of all the medicines which have the property of quickening the action of the alimentary canal, none certainly is so valuable and so generally applicable as senna.

The obstacles to its continued use, in the treatment of habitual constipation, are its griping effects, its disagreeable taste, and the tendency of its preparations—the tincture excepted—to decomposition. In summer, for example, the infusion will not keep more than 24 hours, and the syrup and the confection ferment, inconveniences not easily overcome: for, where aperient medicine requires to be taken every or every other day, it is quite necessary the patient should have it in some form that will preserve without decomposition for two or three weeks, in order that it may be always at hand, otherwise the regularity of the plan will be broken in upon, or the plan itself altogether abandoned as too troublesome. The tincture is too spirituous for ordinary use alone.

It is said that the purgative property of senna is owing to a peculiar principle, cathartina, and that this principle is dissolved by water at a temperature of 96°, which takes up little of the extractive or other matters on which the griping quality is supposed to depend.* If the extensive use of senna, so prepared, should prove this, it would be very important, and would establish the superiority of the liquor sennæ of Battley prepared by cold infusion. It is known that the decoction destroys the virtues of senna, and renders its extract nearly inert.

Various medicines are added to senna with a view to prevent its griping, but none can be altogether depended upon; and some are not proper where senna requires to be used for a considerable period. I presume that the various proposed new methods of pre-

* Cyclopædia of Practical Medicine, article Cathartics: by A. T. Thomson, M.D.

paring senna are not free from objection, seeing that the London College have not adopted any of them, but have retained the old method of preparing the infusion with boiling water. Experiment however is wanted on this subject, and we must hope that the science of chemistry, which has supplied us with the active principles of bark, *nux vomica*, burnt sponge, &c., in the form of quinine, strychnine, and iodine, will be able to separate the cathartina of senna for ordinary use, free from the griping qualities of the gross material.

Dr. A. T. Thomson states that the purgative property of senna is greatly augmented by the addition of camphor mixture and decoction of guaiacum; and that other adjuncts, as magnesia, rhubarb, and the carbonates of alkalis, destroy its active properties.

For ordinary use the confection of senna is a convenient and agreeable medicine, provided it is prepared strictly according to the formula in the *Pharmacopœia*, the various ingredients in which cover the nauseous taste of the senna powder. As sold in the shops, it is a coarse, rough, and most disagreeable compound, containing often neither senna nor cassia, and may be purchased for one-third the price which the genuine preparation costs.* On this account, I recommended my patients to procure it at the Apothecaries' Hall, where they can depend on having a genuine and superior medicine. The confection should be taken at bed-time: the dose, varying from one to two drachms, may be regulated to suit the individual. In summer it is liable to ferment, unless kept in a cool cellar, which is some impediment to its use at this season.

The infusion of senna, though disagreeable to take, is very efficacious, but requires to be prepared every or every second day: the dose from two drachms to half an ounce at bed-time. The nauseous taste is effectually covered by liquorice. The tincture is too spirituous to be taken separately, except where persons accustomed to stimulants are not heated by it: it is aperient in the dose of half an ounce or six drachms: but it is more suitably employed as an addition to the infusion, or to other cathartics. The form of tincture is so convenient—because on account of not being liable to decomposition it is always ready and may be at hand—that I have lately used one prepared with five parts water and one part spirit, the other ingredients being the same as directed in the *Pharmacopœia*, except that liquorice is added to disguise the taste. The tincture so prepared keeps well, is rather pleasant than otherwise, and may be taken in the dose of an ounce, more or less.

An active and palateable compound may be formed of the powder of senna, scammony, and orange confection.

Senna in combination with tonics is most valuable, where the double objects of giving strength and regulating the bowels is to

* See *Pharmacopœia of the Royal College of Physicians of London*, translated by Mr. Phillips, 1837, p. 134.

be gained. The tonic usually preferred is gentian, and so much has it found favour with the profession, that a formula, the *mistura gentianæ c.*, has been introduced into the last *Pharmacopœia*. In it however the proportion of senna is greater than necessary, for the most part. With bark also, senna associates exceedingly well: "I have known," says Dr. Holland, "many instances (of habitual constipation) where calomel, colocynth, and camboge, in large doses, have had little other effect than that of injurious irritation; but where a few drachms of infusion of senna with decoction of bark, have been amply sufficient in producing the desired action;" an observation in which I fully concur. Tonics given alone will very frequently not agree because the bowels are confined; yet agree perfectly and have the best effect when associated with an aperient; than which none is better than senna. In chlorosis with constipation, for example, the *pilulæ ferric* given in conjunction with the *mistura gentianæ c.* are often surprisingly beneficial.

Above all other aperients senna is valuable, not only on account of the mildness and certainty with which it acts, but because it disposes the bowels to act of themselves, and because in proportion as it is continued, the dose—instead of requiring to be augmented—may be diminished, and its full effect nevertheless be maintained. Moreover, it has certainly the property of disgorging the liver, and carrying off bile in a greater degree than any other medicine, except mercury. All these are points of the utmost importance in the treatment of habitual constipation.

SECTION IV.

OF MEANS APPLIED TO THE LARGE INTESTINE.

The Bougie. Lavements. Suppositories.

Of the Bougie.—This instrument may, I think, be had recourse to with advantage more frequently than is customary in the treatment of habitual constipation, and some of its consequences. A bougie of moderate size introduced into the rectum and allowed to remain some minutes has been found on withdrawal to be followed by an action of the bowels. Employed for this purpose, it should be introduced eight or nine inches, so as to arrive at and dilate the upper part of the rectum, which according to O'Beirne is always contracted and in a state of spasm. The most convenient time for its employment is before rising in the morning, and its use should be persevered in daily by the patient himself.

The same effect takes place in infants, if, when the bowels are confined, an urethra bougie is introduced a few inches up the rectum I have myself procured an action in this way; and it is familia.

that nurses introduce a twisted piece of paper for the same purpose and with the same success. A full-sized urethra bougie is however very preferable.

In rigidity of the sphincter ani—a condition very common and often mistaken for stricture—the bougie is extremely useful. It acts upon the sphincter exactly as solid natural dejections would do; and restores its normal facility of dilatation when a moderate force like the action of the gut is brought to bear upon it. Without the aid of the bougie, in these cases, dejections cannot be obtained except by strong cathartics; and as they mostly cause the feces to be soft and thin, these pass through the sphincter without dilating it, and so allow the rigidity to continue as great an obstacle as before.

In stricture of the rectum, not malignant, the bougie is of course the proper remedy: but in diminution of the calibre of the gut from scirrhouous disease, it is inadmissible, because when force is employed scirrhouous parts lacerate but do not dilate; a practical point agreed upon by all surgeons.

In piles from extrusion of the mucous membrane, in prolapsus ani, in anal fissures, and in irritable anal ulcers, the bougie introduced daily with care and perseverance is of vast service, these affections being constantly associated with and in a great measure dependant upon rigid contraction of the sphincter, the effect of constipation.

In scirrhus or cancer of the rectum, a tube of a size adapted to the contracted channel of the gut may be passed through the diseased part—provided it can be done without employing force—with a view to evacuate the bowel above, which otherwise might not be able to relieve itself. In this way accumulations above the disease are sometimes removed or prevented, and the patient saved from the additional sufferings which they would occasion. This object was accomplished by Mr. Tupper in the case of scirrhouous rectum with an accumulation of magnesia as related at page 123.

Common plaster bougies are preferable to those made of caoutchouc, because they adapt themselves more easily to the course of the rectum.

Of Lavements or Clysters.—Previous to the great intercourse which has taken place between France and England since the peace, lavements were looked upon with disgust and horror, and had recourse to only on extraordinary occasions. Now they are in common use.*

As a means of obviating habitual constipation they are employed by some persons daily, with the effect of exonerating the large intestine more or less. However efficient they may, in this respect, appear to be, I have found, from long observation, that they are not free from very great objection. In the first place they do not continue to relieve the bowels fully and freely for any length of time:—in the next place, they do not dispose the bowels to resume

* The best constructed instrument that I have seen, is the Patent Reservoir Syringe, by Weiss, 62, Strand.

their natural action, but, on the contrary, render them more confined: —in the third place, they wash off the mucus from the intestine, which is followed by a degree of irritation and an unpleasant sense of heat, very similar to that which occurs after washing the hands in water simply: —in the fourth place, the feces become more scybalous and hard under their use: —and lastly, the individual does not feel the comfort or conviction of having had his bowels fully relieved; on which account he is often induced to resort to a second lavement on the same day. Lavements fail in completely obviating or curing habitual constipation.

Lavements are nevertheless an excellent *occasional* resource; where, for example, a person has been disappointed of his usual evacuation, or where he is unable, in consequence of his engagements or of other circumstances, to take an habitual aperient, lest it may act at an inconvenient moment. In this case a lavement used in the morning relieves the bowels for the day, and is a great comfort. Or if, while travelling, the bowels become unusually constipated, and yet it is not convenient or scarcely possible to venture on medicine sufficiently strong to act, then a lavement is of essential service, and often prevents absolute indisposition, as I have myself witnessed.

The *fluid* to be injected should be of a bland nature, as *barley water*, *thin gruel*, *linseed tea*, or *milk and water*; but inasmuch as these are not always at hand, persons, I find, invariably end by using merely warm water, which has an injurious and irritating effect upon the mucous membrane of the rectum. Those in the habit of taking lavements should give attention to this subject, and make a point of using one of the bland fluids above-mentioned.

Cold water is less hurtful to the intestine than warm: half a pint injected every morning has proved of essential service. Cold is an indefinite term: the temperature of what we understand by cold water varying many degrees according to the season. In the summer cold water in the dressing-room would be 60° of temperature, in the winter it may be as low as 40°; the summer temperature is proper. The quantity injected should vary from half a pint to a pint or upwards; which the sensations of the individual must determine.

Suppositories are of course not adapted for ordinary use. They, however, may prove of great value under extraordinary circumstances, as where medicine cannot be given by the mouth, the patient being unable to swallow, as in apoplexy, coma, severe inflammation of the throat, or epiglottis. The cathartic best suited and most effectual as a suppository is the croton oil, which Dr. Hen. U. Thomson has employed, as already stated, in the quantity of five drops mixed with crumb of bread, and introduced high up the rectum, with great success in one or two cases of paralysis.

SECTION V.

OF THE TREATMENT OF OBSTRUCTION OF THE BOWELS.

In considering the treatment of obstruction of the bowels, the first step is to ascertain the cause; the next is to determine whether inflammation co-exists.

If the obstruction is discovered to arise from hernia, colica à plumbo, enteritis, or the like, then treatment, appropriate to these cases, must be pursued. If it is supposed to depend on intus-susception, the less that is done the better, beyond emptying the lower bowel by a clyster, assuaging the pain by opium, and appeasing and controlling irritation and inflammation by fomentations, baths, and moderate antiphlogistic measures. Purgatives should be altogether avoided, inasmuch as, by exciting the peristaltic action of the intestine, they may increase the invagination, while it is impossible they can overcome the obstruction. The only chance of life is the sloughing and separation of the portion of gut invaginated; a process requiring time and the resources of a good constitution, husbanded by a good physician.

If the obstruction is supposed to depend on any accidental displacement or twist of the bowel, internal remedies will be of little avail, they having no power to liberate the intestine. An active cathartic may, in the first instance, be tried, it being possible, though scarcely probable, that an energetic peristaltic action might disentangle the gut. Should any tumour be distinguished by most careful exploration of the abdomen, and the character of the seizure, as also the symptoms present, indicate that invagination, displacement, or twist exists, it would become a question how far an operation should be performed, with a view to liberate and disentangle the bowel, a question at all times of great difficulty, and most proper to be decided by consultation. Where either of these causes exists, death is for the most part certain, which may justify the risk of an operation.

It is obstruction from feces or foreign substances arrested or accumulated in the cæcum or colon, or impacted in the rectum that will particularly engage our attention here.

If the cæcum or colon is the seat of the obstruction, a tumour may generally be distinguished in the right ilio-inguinal region, or in the region of that part of the colon where the obstruction is seated, which is most generally the sigmoid flexure. The general plan of treatment should be to abstract blood, more or less, from a vein, if the symptoms call for it; and also locally: secondly, to give one or two strong doses of purgative medicine, as colocynth and calomel, followed by senna and sulphate of soda: but if these fail, they should be discontinued, and the effervescent saline aperients be resorted to and persevered in; opium, or the salts of morphia, being at the same time administered to remove spasm and assuage

pain. The first efforts not having been successful, time should be allowed; and fomentations and baths and clysters be employed as far as the patient's strength will permit. Treated on this plan patients will survive and do well after many days (*ten I have known*) of actual obstruction, with vomiting and hiccup: but if violent measures are persisted in, they will too often sink under the treatment rather than the disease.

The remarks of Dr. Holland on this subject are so judicious and practical, that I must take the liberty of quoting them at length. He says, "In cases of actual obstruction of the bowels, where the name seems to lend a full sanction to the treatment, it may be affirmed that it is often carried on too grossly and indiscriminately. If vomiting does not prevent it, and frequently, indeed, at the risk of bringing this on, purgative is hurried after purgative with increase of dose, or adoption of more drastic medicines at each successive step;—often with little thought as to the causes of obstruction—with much danger of producing inflammation in the obstructed part or elsewhere,—and with no due allowance for the tendency which all parts have to resume a healthy action, if left in quiet.

"I do not mean that purgatives should not be given in cases of obstructed bowels. But I wish to convey the caution, required, as I think, by the too uniform direction of practice in these instances; viz. that if there be distinct local pain, threatening inflammation in any part of the canal,—or much active irritation, with nausea and vomiting,—and if the first cathartic medicines, freely given, fail of success,—it behoves the physician well to consider whether he shall urge this treatment farther. There are, doubtless, cases where it is expedient to do so; but many others where the irritation of drastic purgatives hurries on the patient to danger or fatal result:—and this not unfrequently, where quiet, abstinence equally from food and medicine, leeches and fomentations over tender parts of the abdomen, or still better, in some cases, leeches to the haemorrhoidal vessels, would have removed obstruction, and relieved the complaint.

In these important cases of apprehended obstruction of the bowels, it is obvious on the grounds just stated, that the first use of cathartic means should be the most vigorous, instead of the reverse. If the effect be obtained, it signifies little that the dose has somewhat exceeded the necessity. If otherwise, the chances of mischief by repeated and augmented irritation are spared, and we obtain the indications most to be desired for further treatment."*

Should the obstruction, as indicated by tumour, be seated in the sigmoid flexure of the colon, clysters injected by means of a tube sufficiently long to pass to this point will often be successful, while clysters thrown up by the ordinary short pipe will altogether fail. The use of this long tube is strongly recommended by O'Beirne, who, through its means, has been able to remove obstructions of long

* Notes and reflections: by Henry Holland, M.D., Select Med. Lib., Oct. 1839.

standing which have resisted all other measures. Even in accumulations of feces in the colon without tumour, as in cases of stercoaceous colic, the long tube would insure the passage of the enema into the colon more certainly than the ordinary method.

The enemas may be composed of *infusion of senna and salts*; of *castor oil and gruel*; of *compound extract of colocynth or of aloes one drachm*, or of *assafætida two drachms, dissolved in milk*: the great point being to throw up as much as the colon will bear, whether it be one pint or one gallon.

The colon thus distended acts with more vigour and effect—as the womb does before the liquor amnii has escaped—and the fluid having more or less broken up the accumulated mass, renders it comparatively easy of expulsion.

The most successful and remarkable case of obstruction detailed by O'Beirne is that of a lady 19 years of age, who was affected with most obstinate constipation, vomiting of everything she ate or drank, excruciating spasms of the intestines and intense burning sensation in her stomach. Month after month she was under treatment, first by one physician then by another, who prescribed a variety of medicines, including fluid mercury and enemas, with little or no effect.

In May, 1831, this patient placed herself under O'Beirne's care. "She was particular in insisting on the facts that she had taken various purgative draughts which had not been vomited up; that she had had at least one hundred injections of various kinds administered to her; and that, notwithstanding, she had not had a stool of any kind, or passed even flatus per anum, since early in the preceding December, a period of nearly six months." The enemas had been thrown up with a common bag and pipe. At the time O'Beirne took charge of this patient, "the irritability of the stomach was such, that the only sustenance she could take, or had taken for two months previously, consisted of a table-spoonful of milk and lime-water taken frequently in the day, but vomited up as soon as it was swallowed."

O'Beirne proceeded in the treatment as follows:—"As soon as an enema, consisting of a pint of warm water, two drachms of tincture of assafætida, two ounces of olive oil, the same quantity of sulphate of magnesia, and an ounce of oil of turpentine, could be prepared, she was placed in bed, and turned on her left side. A gum elastic tube was introduced, but with greater difficulty than usual, to the height of nine or ten inches. No flatus escaping, and wishing to ascertain that cause, the tube was withdrawn, when its cavity and about two inches of its upper extremity was found covered with solid feces.

"It being now clear that the sigmoid flexure contained a mass of solid excrement, the tube was again introduced, and in doing so the same difficulty was experienced, and it became necessary to use the same degree of force. Still no flatus passed off. The syringe was now adapted to the tube, and the whole of the injec-

tion thrown up. While this was doing she became very urgent to be allowed to go to the night-chair, but her entreaties were not complied with, until the whole of the fluid had been injected. The tube was then removed, and in less than two minutes she passed one of the most enormous stools I have ever seen; it nearly filled a large sized chamber-pot, was altogether solid, perfectly natural-looking, and arranged in remarkably thick coils."

The first difficulty having been overcome, the bowels were eventually cleared by repeated clysters and aperients. Other symptoms, of which spinal irritation was a prominent one, required attention and were removed: and she was restored to robust health and perfect freedom from any tendency to costiveness.*

A case of obstruction which well nigh proved fatal, occurred in the clinical wards of the Edinburgh Infirmary when I was a student at that university, confirmatory of the opinion of O'Beirne. All the usual means by purgatives and clysters had been tried in vain; when as a last resource the clinical clerk, Mr. Lane (a very intelligent student since deceased), aided by myself, undertook to administer the injections. A tube was introduced as high as possible, and an enema attempted to be thrown up by means of a syringe: as fast however as it passed into the rectum it returned, the sphincter being loose and relaxed. Thin cloth was then rolled round the tube and pressed most firmly against the anus, with a view to act as a plug: the syringe was used with force, and we succeeded in injecting a considerable quantity of the enema into the large intestine. Quickly afterwards the bowel acted vigorously, the obstruction was overcome, the accumulated feces were expelled, and the patient did well from this time.

Intestinal obstructions, which have resisted other means, have yielded sometimes to cold water dashed and sprinkled on the legs and feet: of which practice successful cases are recorded by Dr. Pringle and Dr. Middleton. The latter remarks that "cold water flung on the legs and feet give strength and spirits, and abated the vomiting and pain."

Fluid mercury has been resorted to under similar circumstances. I have myself seen it administered in one instance, without however any decided effect. It may traverse the intestinal canal and find its way through an accumulation or impaction of feces in the large intestine without effecting its removal or expulsion. Mr. William Perry† however relates that in a case of constipation with symptoms of inflammation in which blood-letting, cathartics, and injections had been employed, mercury (quicksilver), in the quantity of two ounces was given on the fourth day, in mulled wine, every third hour, and that after the third dose an evacuation took place and the patient recovered.

Where the obstruction is attended with vomiting, which generally

* New Views of the Process of Defecation: by James O'Beirne, M. D., p. 74, *et seq.* Dublin, 1833.

† Duncan's Medical Commentaries, vol. vi. p. 337.

happens, purgatives if combined with creasote in the quantity of one drop will often be retained on the stomach when otherwise they would be rejected. The property of relieving sickness and irritation of the intestinal mucous membrane is possessed by creasote in an eminent degree; but beyond this it is proved of little value in my experience.

Where the obstruction is produced by feces impacted in the rectum, mechanical means require to be used in order to break up the mass and effect its removal. Previous to this operation purgatives and clysters are of no avail, but afterwards they assist in washing away and clearing completely the whole bowel. The sign, which in cases of obstruction should excite suspicion that the cause is seated in the rectum and lead to the examination of that gut, is *tenesmus*: a practical observation borne out by examples related in a former part of this work.



CHAPTER XII.

ON THE INFLUENCE OF CONSTIPATION, AND OF THE ACCUMULATION OF MORBID SECRETIONS AND FECAL MATTERS IN THE LARGE BOWELS IN PREDISPOSING TO AND EXCITING THE MORE PREVALENT DISEASES OF INDIA: *namely*, CONGESTION, INFLAMMATION, AND ABSCESS OF THE LIVER, DIARRHEA, DYSENTERY, AND ORGANIC DISEASES OF THE LARGE INTESTINE.*

IN consulting Mr. Annesley's splendid work on the diseases of India, with a view to profit from his observations on the physiology and pathology of the large intestines, it appeared that constipation and accumulation of morbid secretions and fecal matters in the large bowels were regarded by him as very frequent predisposing and exciting causes of intertropical diseases. Indeed on a careful perusal of the whole work, I was struck by the constant recurrence of the author to this subject; and more so by the important fact, as established in every chapter and in almost every page of the second volume, that constipation exists as generally and is as productive of disease in India as I have found it to be in this country.

At first it was my intention to embody Mr. Annesley's remarks and opinions in various parts of this work; but so extensive and valuable do I find them to be, and so much do they coincide with and corroborate my own, that in justice to that gentleman, I propose to

* Abstracted from "Researches into the Causes, Nature, and Treatment of the more prevalent Diseases of India, and of warm Climates generally. By JAMES ANNESLEY, Esq., of the Madras Medical Establishment, late Surgeon to the Madras General Hospital, M.R.C.S. and M.R.A.S."

devote a separate chapter to an epitome of those parts of his great work which treat of constipation and the accumulations of morbid secretions and fecal matters in the large bowels, as predisposing and exciting causes of the more prevalent diseases of India. This plan I feel the more called upon to adopt, because of the good sense, sound judgment, practical information, and vast experience of the distinguished author.

It would appear that the more prevalent diseases of India are referable to three causes:—

1. Terrestrial exhalations or malaria in different forms.
2. The mode of living adopted by Europeans generally.
3. Constipation and the accumulation of morbid secretions and fecal matters in the large bowels.

The last only of which will engage our attention.

In speaking of the functions of the large intestines Mr. Annesley introduces, as an important consideration, the derangements of the digestive process resulting from accumulation of gases in the cæcum and colon, and from the infarction of feces in the same situation: and there is nothing, he believes, which tends more to diminish the tone and vital energy of the large intestines, and consequently to facilitate accumulations of feces and flatus in the cæcum and colon, than want of attention to the earliest calls to stool. When these intimations are not attended to, a stop is put to the progress of the fecal contents along the whole line of the canal.

In Chapter III. on the premonitory symptoms of intertropical diseases, it is remarked, that full living on animal food is frequently attended, in many temperaments, with a constipated or otherwise irregular state of the bowels, and a costive and offensive state of the stools; and this is more remarkable in those who take little or no exercise, and even in those who enjoy sea air, or change of air, without much personal exertion. The consequences of full diet, combined with insufficient exercise and a constipated state of the bowels, must be apparent to every one who reflects upon the laws of the animal economy. Although in many instances this state of existence can scarcely be viewed as constituting disorder, yet in others it is evidently so, and in every case it must at least be viewed as leading to it. Constipated states of the bowels, in persons living much upon animal food and rich dishes, tend very rapidly to produce not only plethora of the vascular system, but also to vitiate the constitution of the blood itself.

Torpor of the Functions of the Biliary Organs.—Mr. Annesley reckons habitual inattention to the due and daily discharge of the bowels one of the chief causes of disorder operating on the biliary secretions, through the medium of the digestive organs. A neglected state of the bowels is very frequently observed in soldiers; and, indeed, in all ranks of life. An open state of bowels and an occasional appropriate aperient seem to act beneficially upon the functions of the liver in a threefold capacity; viz. they preserve a free discharge of bile from the gall-bladder into the duodenum,—

they promote a due circulation of this fluid along the biliary ducts, —and they keep up a free circulation of blood in the portal vessels.

Of the six cases detailed as examples of torpor and congestion of the liver, constipation was a prominent symptom in three, in one of which it had existed for nine days. In the other three the frequency of the action of the bowels is not mentioned in the history, but they all required and were benefited by the free use of aperients.

In commenting upon these cases, Mr. Annesley observes, that were it necessary, he could detail a variety of cases wherein diminished action of the liver was connected with dyspepsia and a costive state of the bowels. In these cases there are usually present considerable flatulency, a loaded state of the cæcum and colon, uneasy sensations generally, and a feeling of ill health without being so ill as to resort to medical advice. This state often continues for a considerable time without much increase of disorder until some energetic cause supervenes,—such as exposure to cold and wet, sleeping on the ground or in a current of air, intoxication, or the indulging in intoxicating liquors, &c.—and occasions an attack of hepatitis or dysentery.

The functional disorders of the large bowels are characterized by a deficient tone or action, or by a torpid state of the functions of the different tissues composing these viscera; and although these disorders are often but little calculated to excite either the attention of the patient or the fears of the practitioner, in their early stages, yet they not unfrequently lead to serious consequences and excite dangerous diseases either in the structures in which they are seated, or in those of more remote organs.

Mr. Annesley first turns the attention of the reader to morbid accumulations in the large bowels, and afterwards offers a few observations on some of the most important consequences which are induced, either in an immediate or in a remote manner, by this state of functional disorder.

Remarks on Accumulations of Morbid Secretions and Fecal Matters in the large Bowels. Amongst the more immediate consequences of a torpid state of the cæcum and colon, Mr. Annesley regards retention of the mucous secretions; which he thinks obstruct the ducts themselves of the follicles, and cause them to become distended and subsequently inflamed and ulcerated.

When the fecal matters also are retained, an energetic cause of mischief is superadded, and disorder becomes more general. The more fluid portions are absorbed into the general circulation or portal vein, and produce injurious effects upon the liver and the system generally. Bile retained in the primæ viæ for an unusual time becomes also absorbed, and gives a sallow jaundiced aspect to the countenance.

Besides the mischievous effects arising from the absorption of excrementitious matters, Mr. Annesley proceeds to consider the consequences of accumulations in the cæcum and colon in a more

direct, and frequently mechanical manner. As consequences of these accumulations Mr. Annesley enumerates flaccidity of the muscular tunic of the bowels, enormous distention of the cæcum and cells of the colon, partly by the flatus evolved from the new combinations into which the accumulated materials enter, and partly from the matters themselves which have been collecting from a remote period.

The cæcum and colon, when greatly distended, press upon the femoral nerves and blood-vessels, the vena cava, and iliac veins, producing numbness, cramps, pains in the lower extremities, and even œdema. The loaded and distended colon presses injuriously upon the kidneys, occasioning a dull aching and sense of weight in the loins. It interferes with the functions of the liver, duodenum, and stomach; and, when excessive, not only deranges their functions, but, by impeding the descent of the diaphragm, affects the heart and lungs, retards the return of blood from the head, and induces congestion of the brain and effusion of serum from its membranes.

These accumulations in the large bowels derange the small intestines and stomach, impair digestion, chymification, and nutrition; and an unhealthy and imperfectly prepared fluid passing through the mesenteric glands originates disease in them. The sordes and secretions which collect upon the mucous surface of the colon, occasion, in some instances, irritation and exhalation from the follicular glands, when a spontaneous diarrhoea supervenes and relieves the patient. In other cases, the irritation runs into inflammation of the mucous surface, frequently terminating in ulceration. Most of the worst cases of dysentery and chronic diarrhoea which are met with in India originate in this manner. The accumulations become also the nidus for worms, the irritation of which is a most frequent cause of disease.

Other consequences, remote or immediate, are hypochondriacal and melancholic affections, and elongations and displacements of the colon itself, to all of which much consideration is given.

The symptoms indicating a loaded state of the cæcum and colon are various. Mr. Annesley recommends an accurate examination of the abdomen in all cases, commencing in the region of the cæcum and following the direction of the colon around the abdomen to the region of the sigmoid flexure. Pain, fulness with a doughy sensation, hardness, together with other symptoms, indicate chronic inflammation, and accumulation of sordes or hardened feces: besides this examination other symptoms must be inquired into, and also the habits, constitutions, and temperaments of the patients.

A loaded state of the bowels in warm climates is indicated by a disagreeable bitter taste in the mouth, sallow pale face covered with an oily moisture, dusky skin exhaling a disagreeable fetid perspiration. The appetite is at first but little impaired; digestion weak and difficult, stools scanty, infrequent, hard, or at least formed, and of a dark colour. Afterwards in some cases the stools are more

frequent, but still scanty; occasionally scybalous and attended with slight tenesmus. The urine is high-coloured, and deposes a copious sediment. Headach and various other nervous symptoms are also frequently complained of at an early stage.

In a later stage are added to the foregoing symptoms, uneasiness, pain, sense of weight and distension of the abdomen: also loss of appetite, inactivity, dull pain of the loins resembling lumbago, weakness of the lower extremities with shooting pains, a furred tongue particularly in the morning, drowsiness, pain or weight in the head, and disturbed rest. If this state of things is allowed to remain, the consequent irritation of the mucous surface will induce diarrhoea, ulceration, and the worst forms of dysentery.

Although daily evacuations from the bowels may take place, accumulations in the large bowels may exist to a considerable extent and mislead the practitioner. The cells and flexure of the colon and the cæcum may contain morbid matters even of considerable bulk, without impeding the passage of other substances. In the colon represented in Plate XXXI. fig. 1. of Mr. Annesley's work, all the cells were filled with feces, the middle passage only admitting of the transit of the liquid fecal matters.

In numerous cases of accumulations in the large bowels the patients complained of a more than usual frequency of the calls to stool, which was generally misunderstood by the patient and the practitioner for copious discharges. Upon inspecting the stools in these cases, they are more or less fluid or of a soft consistence, offensive, and apparently composed of hardened feces broken down amid a dark-coloured fluid. Accumulations are, on frequent occasions, fixed in the cæcum and above the sigmoid flexure of the colon.

The causes of accumulations in the large bowels are stated to be whatever tends, directly or indirectly, to lower the energy of the digestive functions or of the whole frame: as sedentary occupations, want of pure air and of sufficient exercise, indolence, full living, late hours, too great indulgence in sleep or in bed, and the use of too warm and too soft beds. No cause is more common than neglecting to attend to every call to stool.

A constipated state of the bowels is generally the first stage of morbid accumulations. An inactive state of the alimentary canal is extremely common among females, and is frequently observed in persons of a robust constitution during voyages by sea, or when travelling on horseback, or in a carriage.

Of the treatment of Accumulations of Morbid Matters in the large Bowels.—The indications of cure when the bowels are loaded with morbid secretions, or other fecal matters, are in the first place to remove them by suitable purgatives, and in the second to prevent a return of this species of disorder.

Seven cases are detailed in illustration, four in gentlemen, three in ladies, in which were symptoms of indigestion, nervousness, constitutional disturbance, hysterical sensations, and so on, with irregular bowels; the dejections in some frequent but insufficient, in

others unfrequent; of various disordered character, bloody, viscid, tenacious, gelatinous, scybalous, dark, fetid, but never free and copious. In three of the cases there was fulness and tumefaction in the region of the cæcum, and a doughy state of the abdomen. They were all treated on a purgative plan, consisting of calomel in doses of gr. x. or gr. xx. with gr. i. or gr. ij. of opium; together with colocynth, the aloes and myrrh pill, senna with bitters and compound decoction of aloes.

Cursory remarks respecting several Disorders frequently depending upon the accumulation of Morbid Matters in the Alimentary Canal, particularly in the Cæcum and Colon.—Mr. Annesley has not a doubt but most of the diseases that are called bilious, indigestions, nervous, and many of the obscure internal disorders arise from matters remaining in the colon which should be carried out of the body. Attention is first directed to the effect of such accumulations upon the position of the colon, and subsequently to those affections which are sympathetic.

Mr. Annesley has met with many cases of *elongation* and *unnatural position of the colon*, some of which he thinks may have been congenital, others evidently pathological. He conceives it by no means improbable that accumulations induce *irregular flexures and displacements* of the colon, and even an *elongated state* of this viscus; and he believes that the supervention of these consequences is favoured by a relaxed state of the meso-colon, of the peritoneal covering of the bowel, and particularly of the longitudinal bands. Impaction of hard fecal matters about the sigmoid flexure of the colon may cause this part of the bowel to be carried lower into the iliac region or pelvis, and lead to partial displacements, elongations, and unnatural flexures of the colon.

As consequences of this state of things are inflammation of the bowel with the usual symptoms of dysentery; or inflammation of the small intestines, or of the liver. Where active inflammation is not produced, there will be severe dyspeptic symptoms, and congestion and consecutive disease of the liver, attended, in some instances, with hypochondriacal symptoms which may terminate in melancholia and insanity, in persons having a predisposition to these affections. That these latter consequences may result from accumulations in the large bowels has been satisfactorily demonstrated by the histories of numerous cases which came before Mr. Annesley, and by the successful result of the treatment adopted for their cure.

Six most interesting cases of displacement, elongation, adhesions, and morbid duplicature of the cæcum and various parts of the colon are described, and exceedingly well represented in the plates, and show the intimate connection between these morbid states and accumulations in the large bowels.

Cursory Remarks on Hypochondriasis and Mental Alienation, in connection with Accumulation of Morbid Matters in the Bowels.—The generation and retention of morbid secretions and fecal matters in the large bowels cause the mental faculties not unfrequently to

become disordered in various grades, from the slighter shades of hypochondriasis, through the advanced stage of melancholia, until complete insanity is established.

M. Esquirol, in his important observations on melancholia in the "Dictionnaire des Sciences Médicales," has stated that in one hundred and sixty-eight cases examined by him after death, he found displacement of the colon in thirty-three, the transverse arch of this bowel generally hanging down into the hypogastric region. Now whether this derangement proceeded from accumulations of fecal matters in this viscus, or from great relaxation and want of tone, the necessary consequence must have been to favour an unnatural retention and collection of fecal and excrementitious matters in the bowel, inducing sympathetic disorder in various parts of the system, more particularly in the brain itself. This effect—although not necessarily or generally proceeding from morbid accumulations in the primæ viæ, yet in those who are suffering from mental anxieties or disappointments, who expose themselves to the direct rays of the sun, and who have an hereditary predisposition to mental disorder—will very frequently supervene. And although the practitioner is not to consider morbid accumulations in the large bowel as the only, or even on many occasions as the chief, physical derangement to which he ought to direct his remedial means, he should, nevertheless, pay sufficient attention to the pathological state pointed out, more particularly as the indications of cure to which it leads are amongst the most important by which he can guide his practice, and when decidedly acted upon, perhaps the most successful in its ultimate issue.

In a very great proportion of cases of melancholic alienation of mind, and indeed in other forms of mental disorder, the stools procured by means of active purging are very dark, tenacious, and even of a pitchy blackness, resulting, in the opinion of Mr. Annesley, from the accumulation and admixture of the various secretions, excrementitious matters, and imperfectly digested food, poured into the alimentary canal, and from the changes they have undergone during their retention in that situation. Entertaining these views, Mr. Annesley has always made it a point, in cases of alienation, to institute a most active and uninterrupted course of purgative remedies in conjunction with other means, as local or general blood-letting, or tonic or cordial remedies: and in every case, treated by Mr. Annesley, the disorder began to yield as soon as the morbid accumulations were carried off, and the motions to assume a healthy character; the period varying from many days to several weeks. Six cases are adduced of hypochondriasis, melancholia, mania, and great mental excitement from morbid accumulations in the bowels and sympathetic irritation: all of which were cured by an alterative and purgative treatment in periods varying from three to seventeen weeks.

Hemeralopia or Night Blindness, frequent between the tropics,

more especially among the natives of India, is considered by Mr. Annesley as dependent upon debility, accompanied with accumulations of morbid secretions in the primæ viæ, more particularly in the cæcum and colon, together with torpid function of the liver and stomach. Among the natives this disease is generally induced by insufficient nourishment and want of attention to the functions of the bowels. A well regulated diet and purgative medicines have been found sufficient for the removal of hemeralopia, frequently without the assistance of any other remedy. Amongst Europeans these medicines are the most unequivocally necessary, for the bowels of those labouring under this affection are often particularly torpid, and require the most active purgatives to produce any effect upon them.

Accumulations of Morbid Matters in the Bowels, as a Cause of Nervous and other Ailments.—It is Mr. Annesley's opinion, that, owing to collections of morbid matters, and the consequently loaded and distended state of the large bowels, attacks of rheumatism and gout are often induced, particularly in those who are liable to these diseases, either from hereditary predisposition, previous attacks, or exposure to one or more of the concomitant and exciting causes whence they often spring. He has uniformly found that these complaints yield soon after the morbid accumulations in the primæ viæ, by which they are generally characterised, have been carried off by a proper employment of purgative remedies.

It is his opinion also that a loaded and distended state of the cæcum, colon, or sigmoid flexure produces, by pressure, partial paralysis and oedema of the lower extremities; pains in the loins; disturbed and impeded functions of the liver, stomach, and duodenum; and, when present to a very great extent, interference, by resisting the action of the diaphragm, with the functions of respiration and circulation; giving rise to dyspeptic disorders; and sympathetically, to disorders of the brain and nervous system. The more usual forms of hysteria, epilepsy, chorea, paralysis, and even apoplexy, seem to be connected, if not altogether dependent upon, the conditions of the large bowels. Three cases are related, the subjects of them being ladies, in which were accumulations in the cæcum and colon, occasioning anomalous nervous and hysterical symptoms, and in one a spasmodic affection. Recovery in all was effected by restoring the healthy functions of the bowels.

Of acute uncomplicated Dysentery.—Collections of excrementitious matters in the large bowels tend very directly and very evidently to irritate the mucous surface on which they lodge, and to induce inflammation followed by ulceration, and even sphacelation, in a very short period, if the disease be neglected or injudiciously treated. In a great many cases this form of dysentery is preceded by a constipated state of the bowels, often of long duration, especially among persons who have recently arrived in India. To this condition frequently supervenes mucous diarrhoea, attended with pains of the abdomen, com-

ing on at intervals, and generally preceding the alvine evacuations. This form of diarrhoea may continue for two or three days, passing gradually into dysentery, with all the characteristic signs of the disease.

Accumulation of morbid matters in the bowels is supposed by Mr. Annesley to be one of the most frequent sources whence the acute uncomplicated form of intertropical dysentery seems to arise. Case CLXXIII. of acute, uncomplicated dysentery occurred in a young recruit, age 24, just arrived from England, who died after having been in the hospital about four days. On dissection it was found that the cæcum and cells of the colon were filled with a dark green mucous and hard scybals of a still darker colour : the middle channel only admitting of the passage of the fecal matters. The whole mucous membrane was inflamed and ulcerated.

Of the causes of Dysentery.—In respect of dysentery, as well as of fevers, Mr. Annesley says, it may be stated confidently that all situations productive of malaria, or which furnish exhalations from the decay of animal and vegetable matter under the operation of a hot and moist state of the atmosphere, will occasion dysentery in the predisposed subject: and that the seasons of an intertropical country, in which a moist state of the air is conjoined with the greatest daily range of temperature, are those that generally most conduce to the generation of this disease.

The greater prevalence of dysentery in the male than in the female sex, arises chiefly from the greater and more frequent exposure of males to its exciting causes. When dysentery attacks females, it usually proceeds from morbid accumulations in the bowels.

A powerful predisposing influence in the production of dysentery in soldiers, arises out of the circumstances connected with the voyage to India; as the quantity and quality of their food, their too liberal allowance of spirituous liquors, and the want of exercise during a period of four or five months.

But there is another circumstance superadded to the above, tending to heighten their influence and to occasion dysentery, more especially its acute and uncomplicated form; namely, the costive state of the bowels to which passengers by sea are particularly liable, and the accumulations of fecal matters which consequently form in the cæcum and colon, irritating these viscera, or disposing them to irritation, as soon as the frame is subjected to the influence of the common exciting causes of the disease. That numerous cases of dysentery originate in this way, and indeed commence very frequently with the characteristic signs of morbid accumulations in the large bowels, has been a matter of daily observation to Mr. Annesley in his practice among recruits, and other persons recently arrived in India.

Amongst the predisposing causes of dysentery, the most powerful, undoubtedly, are those states or functional disorders of the large

bowels already considered; particularly accumulations of fecal matters in the colon, and morbid elongations and displacements of parts of this viscus.

In the concluding chapter on the *Management of Troops on their Arrival in India*, Mr. Annesley states, that during the period he had charge of the general hospital at Madras (five years), he had great opportunities of observing the state of the men after a voyage, and the state of predisposition in which they usually arrive in this country. In all cases, whether soldiers or sailors, in addition to a state of great vascular plethora and irritability of fibre, the morbid accumulations which had formed in the large bowels were so considerable, as actually to require medical discipline for weeks to restore them to healthy action. This is a circumstance of much practical importance, and points out what should be done upon the voyage to and on arrival in India, both as regards the health of the soldier and the treatment of his disease.

MR. ANNESLEY TO DR. BURNE.

DEAR SIR,

I HAVE read with attention the notes you were so kind to send me for perusal, and they appear to me to give a full and very fair representation of my views as to that most fruitful source of disease, accumulation of fecal matters in the large bowels. I am indebted to you for the handsome manner in which you have thought proper to notice my humble labours, and I sincerely hope that your present endeavours will draw that attention to the subject which I conceive it merits, and which its great importance requires.

I have long been of opinion that the want of due attention in the regulation of the alvine discharges generally, in all classes of the community, public and private, is one of the chief sources of the most formidable diseases we are acquainted with. The undue retention of fecal matters in the bowels, by keeping up irritation, and giving rise to constitutional disturbance, contributes materially to the production of that class of diseases, usually denominated nervous affections, common to both sexes in all parts of the world. I am enabled to speak very confidently upon this subject, from a most extensive and varied field of observation during a period of more than thirty years, and I am every day more and more convinced of the fact, that the want of proper attention to the alvine discharges from the bowels, and the permitting an accumulation of fecal matter in them, is a great cause of disease, not sufficiently attended to by medical practitioners in general. I do think it of the first importance that, in the treatment of all diseases, the distinc-

tion should be strongly marked in that most valuable class of medicines, between the purgatives that stimulate, and such as evacuate the bowels freely and fully, without causing any disturbance. I am aware that both tact and judgment are required in the exhibition of these medicines; but the subject is well deserving of attention.

Believe me, dear Sir,

Very faithfully yours,

J. ANNESLEY.

H. No. 1, Albany, Piccadilly,
Nov. 8, 1839.



THE END.

